S. Hrg. 99-262 Pt. 2

Senate Hearings

Before the Committee on Appropriations

Agriculture, Rural Development, and Related Agencies Appropriations

Fiscal Year 1986

99th CONGRESS, FIRST SESSION

H.R. 3037

S181-2

PART 2—(Pages 1-688)
DEPARTMENT OF AGRICULTURE
FOOD AND DRUG ADMINISTRATION
COMMODITY FUTURES TRADING COMMISSION
GENERAL ACCOUNTING OFFICE

S. Hrg. 99-262 Pt. 2

AGRICULTURE, RURAL DEVELOPMENT, AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1986

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

UNITED STATES SENATE

NINETY-NINTH CONGRESS

FIRST SESSION

ON

H.R. 3037

AN ACT MAKING APPROPRIATIONS FOR AGRICULTURE, RURAL DEVELOPMENT, AND RELATED AGENCIES PROGRAMS FOR THE FISCAL YEAR ENDING SEPTEMBER 30, 1986, AND FOR OTHER PURPOSES

PART 2 (Pages 1-688)

DEPARTMENT OF AGRICULTURE
FOOD AND DRUG ADMINISTRATION
COMMODITY FUTURES TRADING COMMISSION
GENERAL ACCOUNTING OFFICE

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AGRICULTURE, RURAL DEVELOPMENT, AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1986

TUESDAY, APRIL 2, 1985

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:18 a.m., in room SD-124, Dirksen Senate Office Building, Hon. Thad Cochran (chairman) presiding.

Present: Senators Cochran, Kasten, Mattingly, Burdick, Bumpers, and Sasser.

DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE

STATEMENTS OF:

- **DANIEL G. AMSTUTZ, UNDER SECRETARY, INTERNATIONAL AFFAIRS AND COMMODITY PROGRAMS**
- **PETER C. MYERS, CHIEF, SOIL CONSERVATION SERVICE**
- **EVERETT RANK, ADMINISTRATOR, AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE**

ACCOMPANIED BY:

- **WILLIAM E. GARDNER, JR., DIRECTOR, BUDGET PLANNING AND ANALYSIS, SOIL CONSERVATION SERVICE**
- **ROBERT E. SHERMAN, BUDGET OFFICER, DEPARTMENT OF AGRICULTURE**
- **DAVID C. HALL, BUDGET OFFICER, AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE**

OPENING STATEMENT

Senator KASTEN [presiding]. The subcommittee will come to order. This morning, the subcommittee will hear from representatives of several agencies and programs within the U.S. Department of Agriculture. We are going to operate with two panels. The first will focus on the conservation activities of the Soil Conservation Service and the Agricultural Stabilization and Conservation Service. The second panel will focus on the budget request for the Commodity Credit Corporation, the Agricultural Stabilization and Conservation Service, the Foreign Agricultural Service, the General Sales Manager, and the Office of International Cooperation and Development.

AGENCY MISSIONS

The Soil Conservation Service's general responsibility is for administration of a number of programs of USDA. Its purpose is to improve and conserve soil and water resource quality and quantity, improve agriculture, and reduce the damage caused by floods and sedimentation.

The ASCS administers conservation programs which provide cost-sharing assistance to farmers and landowners. The programs include the Agricultural Conservation Program, the Forestry Incentives Program, the Water Bank Program, and the Emergency Conservation Program.

PROGRAM TERMINATION AND EMPLOYEE REDUCTION

The budget proposes to terminate all of the ASCS conservation programs and most of the SCS programs by the end of fiscal year 1986. It would reduce employment by approximately 9,300 employees. Compared to the 1985 appropriation level, the administration proposes a decrease of $368 million, or a 45-percent reduction.

CHIEF AGENCY WITNESSES

Leading this first panel is Peter Myers, Chief of the Soil Conservation Service; Everett Rank, Administrator of the Agricultural Stabilization and Conservation Service; and Bob Sherman, Budget Officer for USDA. We welcome all of you here. On behalf of the chairman, I thank you for working with us. We do have copies of your prepared statements, which will be made part of the record in full, and we ask that you summarize and make your statements as succinct as possible, so that there is time for questions.

CONSERVATION LEGISLATION AND THE BUDGET PROPOSAL

I would also just like to make a brief comment before you begin. As you may know, I have introduced S. 598, a strengthened version of the sodbuster legislation that passed the Senate last year. I also plan to introduce legislation after the Easter recess that would establish a long-term soil conservation reserve to take millions of fragile acres out of production. If my legislation is enacted, the Soil Conservation Service will be responsible for administering the provisions of that legislation. It should be obvious, therefore, that I will not be supporting the administration's proposal to slash the SCS budget to one-third of its present size.

I believe that most Senators agree with me. Certainly, we have got to trim the budget. A soil conservation reserve, by the way, could allow us to do just that. But we need to be more imaginative than the number crunchers at OMB who, I am sure, came up with the administration budget proposal in this area.

EROSION DAMAGE

Soil erosion is a pressing national issue. Each year, we lose about 3 billion tons of topsoil from cropland, enough to fill the Houston Astrodome 34,000 times. Much of this erosion occurs on about 10 to 11 percent of our cropland.

This topsoil finds its way into river channels and municipal water systems, carrying fertilizers and pesticides harmful to both man and wildlife. The problem is getting worse, and most of it is concentrated. This suggests to me that the erosion problem can be dealt with if we take the right approach.

EROSION PROBLEM SOLUTIONS

I would like to see these kinds of fragile lands taken out of production and kept out. If we could take and keep these lands out of production, we would go a long way toward solving the erosion problem.

We would also save the Government money by idling productive capacity which we do not need in a time of chronic surpluses. I would agree with the administration that the current soil conservation programs are not doing the job, but what that means to me is not that we should lessen our soil conservation efforts. I think it means that we should redirect them toward more effective programs, like sodbuster legislation and a conservation reserve.

ECONOMIC DISINCENTIVES AND SOIL EROSION

One last point. I note that USDA's budget summary asserts that the economic incentives to crop highly erodible land will diminish once the administration's commodity program is enacted. It ought to be clear to everyone by now that this simply is not going to happen. I would, therefore, hope that this subcommittee can get some guidance from you, Chief Myers, as to what programs, personnel levels, et cetera, that we are going to need to deal with the soil erosion problem.

I see that the chairman has joined us. Mr. Chairman, let me thank you for the opportunity of beginning your hearing. We now look forward to the testimony from the witnesses that we have before us.

INTRODUCTION OF WITNESSES

Mr. AMSTUTZ. Thank you. In the interest of time, and with your approval, I would ask that my statement be submitted for the record.

Senator KASTEN. Without objection, it will be inserted.

Mr. AMSTUTZ. I would like just to reiterate who is at the table with me.

On my right is Mr. Everett Rank, Administrator of the ASCS; on my left, Mr. Peter Myers, Chief of the SCS; to his left, Bill Gardner, and to the right of Mr. Rank, Dave Hall of ASCS and Bob Sherman of our Office of Budget and Program Analysis.

I will first call on Peter Myers, Mr. Chairman, to present the statement for SCS.

SOIL CONSERVATION SERVICE

Mr. MYERS. Mr. Chairman, I have a written statement that I would like to submit for the record, and then I will just highlight that statement in the interest of time.

PREPARED STATEMENTS

Senator KASTEN. We appreciate that, and without objection, your entire statement will be made a part of the record, along with the prepared statement of Mr. Amstutz.

[The statements of Mr. Amstutz and Mr. Myers follow:]

STATEMENT OF DANIEL G. AMSTUTZ

Mr. Chairman, Members of the Committee, thank you for this opportunity to present to you the FY 1986 budget proposals for the four agencies and offices which comprise the international affairs and commodity programs area of the Department. These are the Office of the General Sales Manager, the Foreign Agricultural Service, the Office of International Cooperation and Development, and the Agricultural Stabilization and Conservation Service.

Accompanying me today are the two Deputy Under Secretaries, Richard Goldberg and Tom Kay. Mr. Goldberg has appeared before your committee previously. Mr. Kay has been recently appointed Deputy Under Secretary. He has served with the Department for a number of years and has worked on a variety of matters related to U.S. agriculture and the Department.

Also here are Everett Rank, Administrator of ASCS; Richard Smith, Administrator of FAS; Melvin Sims, the General Sales Manager; and Joan Wallace, Administrator of OICD.

Domestic Developments

Let me begin by briefly reviewing recent developments in the domestic agricultural situation. During 1984/85, we are experiencing increased production, lower prices, and new financial concerns for producers. With improved weather conditions, production of U.S. crops returned to more normal levels. Livestock production also continued at high levels during the year. However, dairy production declined due to new dairy program policies that lowered price support levels and offered other incentives to reduce production.

For 1985/86, the commodity outlook is for continued high levels of production and a slower growth in demand. As a result, domestic supplies are likely to continue high, and farm prices will remain under pressure.

All of us are concerned with the current farm credit situation. The economic conditions of the 1970s, including rapidly rising land values and low real interest rates, led many producers to borrow heavily to finance expansion of their farming operations. These conditions began to change markedly in recent years when inflation began to decline, the dollar began to rise and interest rates have remained at relatively high real levels. As a result, many of these producers have experienced growing cash flow problems and declining equity, and they are under severe financial stress.

To respond to these developments the Administration has taken a number of actions. Last September, President Reagan announced a plan to restructure farm debt, and in February and March, Secretary Block announced further steps to enhance the effectiveness of the program. While the Federal Government cannot take on the full burden in solving these financial problems, the programs we have put in place will help minimize the economic dislocations resulting from them and will assist many farmers through these difficult times.

It should also be noted that the Commodity Credit Corporation has been providing significant amounts of operating cash to farmers to keep them going during this difficult year. For FY 1985, it is estimated that CCC will have provided over $16 billion in loans and direct payments to farmers, of which $12 billion will have been provided between December 1984 and April 1985.

World Agricultural Situation

In the international market, we are facing continued surplus supply conditions, with a return to record production levels for many crops and continued slow growth in demand. World ending stocks for grains are now projected to reach 222 million metric tons for the 1984/85 marketing year, an increase of nearly 19 percent from the previous year. This build-up of stocks results from record grain production, up almost 10 percent, with particularly significant increases this year in the United States, China, and the European Community. World trade in grains is expected to increase by approximately 4 percent.

For oilseeds, world production is expected to increase over 12 percent following drought reduced crops of the previous year. World trade in oilseeds and protein meal is expected to remain virtually unchanged, while trade in oils is expected to increase by 10 percent. However, for soybean oil a decline of 2 percent in the volume of world trade is projected. Ending stocks for oilseeds are estimated to increase 20 percent.

World production of cotton is expected to increase almost 25 percent from the previous year to 84.3 million bales, with much of this growth occurring in the United States and China. With usage expected to increase by only one million bales, ending stocks are expected to reach 38.7 million bales. This represents an increase of nearly 58 percent from the 1983/84 marketing year.

Surplus conditions resulting from the current imbalance of world agricultural production and demand are now expected to remain for the foreseeable future. Global production capacity is expected to remain large and will increase further with the development and adoption of new technologies. Global demand will probably expand more slowly than during the 1970s with developing countries in particular experiencing slow recovery from the world-wide recession of the early 1980s.

U.S. Exports

During FY 1985, U.S. agricultural export volume is expected to decrease slightly to 142.5 million metric tons, down from 143.6 million metric tons in FY 1984. The dollar value of those exports is expected to decline to $34.5 billion, a reduction of 9 percent from 1984. With imports projected at $19.5 billion, our agricultural trade surplus is anticipated to be $15.0 billion, down over $4.0 billion from the FY 1984 surplus level.

The factors contributing to our agricultural exports not growing as quickly as we would like have been discussed with this Committee in previous hearings. They include our own domestic commodity programs which have worked against our ability to compete overseas, continued slow economic growth outside the United States, record foreign production for some crops, increased exporter competition, and the strength of the U.S. dollar relative to other currencies. Despite these problems, expansion of U.S. agricultural exports remains a top priority of this Administration, and we are increasing our efforts in the export promotion area. Let me summarize recent developments in this regard.

1985 Proposed Farm Legislation Provisions

The Administration has already submitted new farm program legislation which we hope will be carefully considered and approved by the Congress. The proposals move American agriculture toward a greater market orientation. We believe that existing farm legislation is stimulating excessive production and limiting our ability to compete in world markets. Our proposed legislation calls for price supports to be set in relation to market prices. It would phase out government acreage controls and place a limit on the amount of direct payments and loans a producer could receive.

Equally important, our farm bill proposal, particularly its loan rate provisions, is intended to go a long way toward making our commodities more competitive in international markets. This will contribute to future export growth and help to recapture markets we have lost in recent years. American farmers have the know-how to compete, but we need to rewrite the rules so they are helped, not hindered, in resuming their place in world markets.

Other provisions of the proposed bill set forth a formal trade policy for U.S. agriculture, including a commitment to promote open access in world markets for U.S. agricultural exports, restrictions on selective embargoes on agricultural products, and guarantees for the sanctity of export contracts. Additional provisions call for expanded trade through negotiations to reduce restrictive trade practices, reauthorization of P.L. 480 food aid programs, and the continued availability of export credit guarantees at levels consistent with worldwide credit needs, the creditworthiness of the recipients, and the U.S. competitive situation.

Export Credit and CCC Sales

As another component of our export promotion efforts, we are continuing to offer substantial levels of export credit and to make sales of CCC-owned commodities overseas. During FY 1985 the General Sales Manager is making available a record $5.0 billion in export credit guarantees as well as $325 million in direct credit. A portion of the direct credit was intended to be used in tandem with export credit guarantees to provide blended credit to select wheat importing countries where we face subsidized competition. Unfortunately, sales registrations under the blended credit program have been suspended due to a recent court ruling on the applicability of cargo preference requirements. We are presently assessing the implications of this ruling for the continuation of the program.

We have also been implementing the special program of sales of CCC-owned commodities to African countries requiring emergency food assistance. Sales made thus far under this program will result in exports of nearly 300,000 metric tons of grains, with a total acquisition value of $61.6 million. Countries already participating in the program are Angola, Benin, Burkina Faso, Djibouti, Guinea, Kenya, Mali, Senegal, Togo, and Zaire. A third tender under this program was issued in early March. Once awards are made for this tender, the total acquisition value of commodities sold under the program is expected to be $90 million.

During the past year we have also made direct sales of nearly 80,000 metric tons of CCC-owned dairy products to Mexico, Egypt, and Iraq. The total value of these commodities is $82 million.

Food Assistance

The P.L. 480 program remains an important contributor to long-term market development activities of the Department. During FY 1985, we have requested a supplemental program level increase for the P.L. 480 Title II program of $201 million. Once enacted, the total P.L. 480 program level for this year will exceed $2 billion, and provide for the export of 8.5 million metric tons of commodities. This will constitute the highest volume of annual P.L. 480 shipments since 1972 and the highest dollar value of P.L. 480 commodity shipments ever.

The continued drought and famine situation in Africa continues to occupy much of our attention. Already in FY 1985, over 2.2 million metric tons of P.L. 480 food assistance have been approved for sub-Saharan African countries. The total value of this assistance is $685 million, of which $463 million is for commodities and $222 million is for associated ocean and inland transportation costs.

We are also providing additional food assistance to Africa consisting of dairy donations under Section 416 authority and wheat from the Food Security Wheat Reserve. Through mid-March, 49,000 metric tons of dairy products had been approved for donation to African countries under Section 416 and 161,000 metric tons of wheat and wheat products had been approved from the Food Security Wheat

Reserve. Both the commodity and transportation costs of these programs are being financed by the Commodity Credit Corporation.

Trade Policy

Another important component of our efforts to increase exports is continued trade negotiations to promote open access in world markets for U.S. commodities and to provide for fair trade practices in international markets. Within the multilateral framework of the GATT Committee on Trade in Agriculture we are continuing discussions on a possible approach to the removal of import restrictions and export subsidies in world agricultural trade. A report by this Committee is due later this year.

Bilateral trade negotiations are also continuing with a number of countries, most notably Japan and the European Community. One achievement of the past year was our April 1984 agreement with Japan, providing for expanded import quotas for high-quality beef and citrus products. This agreement, reached following 18 months of negotiations, is expected to provide $400 million of increased sales during the next four years. We are now focusing our negotiations with Japan on the elimination of barriers to forest product imports.

We have also continued to meet with representatives of the European Community concerning a range of agricultural trade issues. Among these were proposed restrictions on imports of non-grain feed ingredients, including corn gluten feed, and the proposed consumption tax on vegetable fats and oils, which could have impaired U.S. exports of soybeans and products. Thus far, neither of these two proposals has been implemented by the Community, and the latter one has been dropped from consideration altogether.

Market Development

The final component of our export promotion activities centers on the cooperator market development and related programs of the Foreign Agricultural Service. These activities are being increasingly directed towards the middle-income and developing countries of Southeast Asia, Latin America, the Middle East, and Africa where the growth potential for U.S. agricultural exports is greatest.

Also, in an attempt to increase the share of high value and value-added commodities in total U.S. agricultural exports, FAS has expanded its efforts in support of these products, including the start-up of a new High Value/ Value-Added Export Incentive Program.

FY 1986 Budget Requests

The agency Administrators will provide details on the budget requests for each of their programs, but I would like to provide a general overview.

To continue our export promotion and market development activities we intend to make available $5.0 billion in export credit guarantees during FY 1986, which is unchanged from this year. Our request for P.L. 480 programs is $1,680 million, which will provide for approximately 6.9 million metric tons of commodity exports. Of this, $1,030 million is requested to provide 4.9 million metric tons of Title I/III concessional sales assistance, and $650 million is to provide for an estimated 2.0 million metric tons of Title II donations. During FY 1986 we will again be closely monitoring the drought situation in sub-Saharan Africa and assessing additional food aid needs.

We are requesting $5.9 million for the Office of the General Sales Manager, which is funded through the Commodity Credit Corporation. This represents a slight decrease from the FY 1985 level of $6.1 million and is attributable to management savings.

The program level request for the Foreign Agricultural Service is $83.8 million, which also represents a slight decrease from the FY 1985 level. The reduction results from management savings and elimination of a direct appropriation request for the purchase of LANDSAT data. Program activities of FAS, including the Foreign Market Development Cooperator program, will remain generally unchanged from this year's level.

The Office of International Cooperation and Development is responsible for cooperative international research, scientific and technical exchanges, and liaison with international agricultural organizations. It also directs training and technical assistance efforts in developing countries, which are funded on a reimbursable basis by the Agency for International Development (AID). The FY 1986 request for OICD is $3.8 million, a reduction of $6.2 million from the FY 1985 level. This reduction stems from the planned phasing-out of the Special Foreign Currency Research program, and the Middle Income Training program. Activities initiated with prior year funding for both these programs will continue until completion.

We are requesting a small increase of $200,000 for OICD to establish an International Agriculture Information Center. This center is intended to respond to inquiries from the U.S. private sector and developing countries on trade and investment opportunities in these countries.

For the Agricultural Stabilization and Conservation Service, we are proposing to terminate all conservation cost-share programs. Appropriated ASCS salaries and expense funds for conservation will be transferred to the Commodity Credit Corporation. These funds will be eliminated after 1986 as no new conservation cost-share projects will be undertaken.

For the Commodity Credit Corporation, net outlays in FY 1986 are estimated to be $10.5 billion, a reduction of $4.5 billion from the FY 1985 level. In addition, we are proposing that CCC be provided with permanent, indefinite appropriation authority for reimbursement of its net realized losses directly from the Treasury.

Mr. Chairman, this ends my prepared remarks, and I will now answer any questions you may have.

STATEMENT OF PETER C. MYERS

Mr. Chairman and members of the Committee, I appreciate the opportunity to appear before you today as the Chief of the Soil Conservation Service. We are here today to discuss the Administration's 1986 budget proposals for those programs administered by the Soil Conservation Service. The task of putting together these budget proposals was most difficult as we considered both the urgent need to reduce Federal deficits and the necessity to maintain for future generations the Nation's real wealth in terms of its soil and water resources. I know you would agree that there are no easy solutions to the dilemma with which we are faced. One thing is certain, and that is that the Federal government can no longer afford to do things the same way as always or even do everything that we believe needs to be done.

The Administration has taken a hard look at identifying those functions performed by the SCS which we consider to be of the very highest priority and absolutely essential to the Federal role in supporting a cooperative conservation effort. We began by reviewing the original mission of the SCS as it was established by Public Law 46 in 1935. We considered current conservation needs and priorities as set forth in the National Conservation Program transmitted to Congress in 1982 in response to the requirements of the Soil and Water Resources Conservation Act of 1977 (RCA). Within the limited resources that were available, the Budget proposes a minimum level program which permits us to continue to provide Federal leadership for a national conservation program. On the basis that our most important resource is technical knowledge, we would still provide technical assistance, although at a reduced level, working with farmers and other land users through conservation districts to address high priority resource problems caused by excessive soil erosion and inefficiencies in the use of limited water supplies. The SCS role would emphasize conservation planning and technology transfer. Greater reliance would be placed on conservation districts, other State and local agencies, and the land users themselves to carry out actual on-the-ground application of conservation practices. SCS would continue to provide soil survey information to support conservation work, although we would have to postpone our goal for completing the nationwide soil survey in the next decade. SCS would also continue to test and develop plant materials for erosion control and other high priority conservation uses. These are the functions which we believe support the central mission of the SCS and could not be carried out effectively without Federal assistance.

Over the years, programs have been authorized for implementation by SCS to help prevent flooding in small watersheds; to address serious erosion problems in the Great Plains States; to improve economic opportunities in rural areas; to collect and analyze natural resource data; and to carry out long-term conservation planning and evaluation. These programs have made a valuable and lasting contribution to the significant progress that has been made over the past 50 years in maintaining the condition of our soil and water resources. However, in view of the serious national economic problems we are now facing, the 1986 budget proposes to discontinue funding for these programs.

FY 1986 Budget Request for SCS

For fiscal year 1986, the budget requests $452.7 million for the Soil Conservation Service. Of this amount, $252.7 million is for nonrecurring costs such as severance pay and lump sum payments for the approximately 9,300 SCS employees who would be discharged in 1986 and for miscellaneous administrative costs that would be required to discontinue specified SCS programs by the end of fiscal year 1986. The remaining $200 million would provide funding for continuing a minimal level of technical assistance and soil survey work, and for continued operation of the SCS plant materials centers. This continuing program level represents a decrease of $409.4 million in SCS program operations or about 66 percent compared to the 1985 Appropriation level.

A staffing level of about 5,000 full-time equivalents would be retained to carry out the continuing SCS programs. Of these, approximately 3,820 staff years would be available for conservation technical assistance. This would permit us to provide nationwide program coverage averaging one SCS employee per conservation district. The proposed funding level would also permit another 800 staff years of work to be done through contracting with conservation districts or other nonfederal sources. The remaining 1,180 federal staff years would be used for soil survey work and at plant materials centers. We would, of course, have to make some changes in our organizational structure in order to manage effectively a reduction of this magnitude. As we have done in the past, we would make every effort to maximize resources available for conservation work at the field level.

Mr. Chairman, this has been a painful process for the Secretary and for me. We know that the proposals we are presenting here today will pose equally difficult questions for the Congress as it seeks to make the best allocation of limited taxpayers' dollars. We do believe that even with reductions in Federal conservation funding, much conservation work will still be accomplished. Public awareness of the need to conserve soil and water resources is higher than ever. State and local conservation programs are strong and growing. Contributions of funds and services by non-SCS sources totaled approximately $357 million in 1984, an increase of more than ten percent over the 1983 level. We are stressing the use of more cost-effective technologies such as conservation tillage, used by farmers on about 97 million acres or 30 percent of our cropland during FY 1984, which enables farmers to practice conservation through good management.

I would like to provide for the record a table which provides a summary of the SCS budget and tables which show the contributions of funds and services from State and local governments and other non-SCS sources in FY 1984.

That concludes my prepared statement, Mr. Chairman. With the help of my staff, I will be happy to answer your questions.

SOIL CONSERVATION SERVICE

FY 1986 BUDGET
($ in thousands).

	FY 1984	FY 1985		FY 1986		
	Actual	Enacted	Proposed	Phase-Down Costs	Continuing Program	Total Request
CONSERVATION OPERATIONS:						
1. Technical Assistance...........................	$274,979	$276,035	$278,974	$124,913	$160,000	$284,913
2. Inventory and Monitoring.......................	14,395	14,441	14,511	9,774	—	9,774
3. Soil Surveys...................................	53,517	53,660	53,816	15,172	36,075	51,247
4. Snow Surveys and Water Forecasting.............	3,904	3,913	3,913	2,637	—	2,637
5. Operation of Plant Materials Centers...........	3,980	3,999	4,035	—	3,925	3,925
6. Resource Appraisal and Program Development...	4,310	4,316	4,306	1,683	—	1,683
Total, Conservation Operations..................	355,085	356,364	359,555	154,179	200,000	354,179
RIVER BASIN SURVEYS AND INVESTIGATIONS:						
1. USDA Cooperative Studies......................	10,819	9,754	9,598	7,704	—	7,704
2. Flood Plain Management Assistance.............	3,012	2,915	2,868	2,302	—	2,302
3. Interagency Coordination and Program Formul..	1,788	1,985	1,953	1,568	—	1,568
Total, River Basin Surveys and Investigations...	15,619	14,654	14,419	11,574	—	11,574
WATERSHED PLANNING AUTHORIZED BY PL-566.........	8,675	8,750	8,617	6,895	—	6,895
WATERSHED AND FLOOD PREVENTION OPERATIONS:						
1. Watershed operations authorized by PL-534:						
a. Technical Assistance.........................	13,083	15,338	15,238	11,714	—	11,714
b. Financial Assistance for construction.....	9,898	11,769	11,769	—	—	—
c. Loan Services................................	219	193	193	—	—	—
Subtotal, Flood Prevention......................	23,200	27,300	27,200	11,714	—	11,714
2. Emergency Watershed Protection Operations....	22,000	5,000	5,000	1,179	—	1,179
3. Small watersheds authorized by PL-566:						
a. Technical Assistance.........................	61,996	61,559	60,741	49,738	—	49,738
b. Financial Assistance for construction.....	87,558	88,044	79,679	—	—	—
c. Loan Services................................	446	397	397	—	—	—
Subtotal, Watershed Operations..................	150,000	150,000	140,817	49,738	—	49,738
Total, Watershed and Flood Prevention Operations	195,200	182,300	173,017	62,631	—	62,631
GREAT PLAINS CONSERVATION PROGRAM:						
1. Cost-sharing assistance........................	12,253	11,963	11,963	373	—	373
2. Cost-share programming and contract admin....	2,900	2,993	2,953	2,249	—	2,249
3. Technical Assistance...........................	6,162	6,359	6,273	4,780	—	4,780
Total, Great Plains Conservation Program........	21,315	21,315	21,189	7,402	—	7,402
RESOURCE CONSERVATION AND DEVELOPMENT:						
1. Technical Assistance...........................	16,166	16,701	16,537	10,000	—	10,000
2. Financial Assistance...........................	9,668	9,158	9,158	—	—	—
3. Loan Services..................................	166	141	141	—	—	—
Total, Resource Conservation and Development....	26,000	26,000	25,836	10,000	—	10,000
Subtotal, SCS Appropriated Funds................	621,894	609,383	602,633	252,681	200,000	452,681
RURAL ABANDONED MINE PROGRAM.....................	(10,582)	(9,800)	(9,800)	—	(3,375)	(3,375)
Trust Funds...	560	700	700	560	—	560
Total, SCS..	$622,454	$610,083	$603,333	$253,241	$200,000	$453,241

SCS:BPAD:1-15-85
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UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

TABLE 2

NATIONAL SUMMARY ESTIMATES - CONTRIBUTIONS OF FUNDS AND SERVICES TO
SOIL AND WATER CONSERVATION DISTRICTS PROGRAM
FISCAL YEAR 1984 - (DOLLARS)

STATE	PROG ASSMNT	CONS PLAN	CONS APPL	SOIL SURVEY	SNOW SURVEY	WATERSHED	RC&D AREA	OTHER	TOTAL
ALABAMA	1,098,160	329,042	398,341	341,439	0	120,674	279,564	252,776	2,819,996
ALASKA	1,182,250	35,500	3,500	60,400	5,900	65,000	70,000	780	1,423,330
ARIZONA	211,531	80,454	1,852,187	267,664	1,750	2,419,740	93,138	1,870,862	6,797,326
ARKANSAS	3,251,300	783,000	3,450,500	53,400	0	2,028,300	2,545,300	165,400	12,277,200
CALIFORNIA	2,868,215	1,586,616	5,835,533	167,611	1,627,560	2,598,433	42,737	1,121,269	15,847,974
CARIBBEAN AREA	1,248,301	511,741	4,101,552	0	0	203,800	232,000	0	6,297,394
COLORADO	671,191	233,343	775,196	198,984	601,231	211,410	675,531	57,960	3,424,846
CONNECTICUT	323,960	74,300	105,000	29,950	0	87,700	453,400	9,850	1,084,160
DELAWARE	178,750	68,400	766,700	0	0	2,089,080	9,100	1,086,580	4,198,610
FLORIDA	434,864	113,900	482,981	357,164	0	574,000	2,300	65,337	2,030,548
GEORGIA	1,102,000	578,900	1,534,500	22,900	0	1,388,000	1,221,000	235,300	6,082,600
HAWAII	279,331	69,450	511,600	31,000	0	399,262	30,333	35,600	1,356,576
IDAHO	506,767	331,629	760,802	268,900	25,274	317,520	237,468	320,077	2,768,437
ILLINOIS	2,128,974	1,692,996	1,526,627	1,123,035	0	1,002,234	441,700	144,002	8,059,568
INDIANA	2,241,718	958,774	2,171,533	220,467	0	908,348	293,268	188,733	6,982,841
IOWA	4,462,002	595,314	5,394,302	1,132,233	0	921,821	540,419	8,642,176	21,688,267
KANSAS	2,113,867	831,990	2,264,484	27,961	0	3,572,615	886,435	251,921	9,949,273
KENTUCKY	1,366,361	114,684	897,649	212,686	0	174,282	34,008	3,267,188	6,066,858
LOUISIANA	1,910,000	433,000	2,124,000	481,000	0	5,715,000	215,000	25,000	10,903,000
MAINE	182,628	29,121	236,546	8,000	0	66,984	318,340	10,182	851,801
MARYLAND	850,133	396,341	798,914	26,700	0	97,271	447,997	1,034,460	3,851,816
MASSACHUSETTS	245,550	68,050	107,250	12,050	0	835,920	173,400	11,100	1,453,320
MICHIGAN	1,645,075	659,000	3,201,900	1,221,500	0	353,425	485,825	0	7,566,725
MINNESOTA	1,376,219	1,276,352	2,462,496	1,477,024	0	6,286,312	372,159	2,863,551	16,114,113
MISSISSIPPI	863,071	302,048	1,486,297	49,000	0	858,115	337,375	123,494	4,019,400
MISSOURI	2,392,050	1,338,250	5,302,100	457,840	0	863,290	460,490	731,880	11,545,890
MONTANA	1,373,137	669,684	1,614,979	307,560	17,235	650,050	731,110	291,239	5,654,994
NEBRASKA	3,729,571	1,097,870	3,311,319	548,027	0	3,480,454	163,533	3,135,417	15,376,191
NEVADA	154,646	33,935	151,290	1,002,500	7,180	45,500	2,300	43,000	1,440,351
NEW HAMPSHIRE	152,306	21,154	7,110	7,019	0	32,449	42,134	0	262,172
NEW JERSEY	493,023	133,168	96,645	0	0	3,305,936	296,200	110,000	4,434,972
NEW MEXICO	288,605	94,122	818,023	196,580	440	207,670	67,921	67,380	1,740,741
NEW YORK	1,485,318	1,323,147	4,016,872	229,120	0	1,307,601	809,168	357,379	9,528,605
NORTH CAROLINA	3,494,250	857,067	1,605,605	768,253	0	2,450,000	518,400	465,293	10,158,868
NORTH DAKOTA	763,249	253,688	748,113	174,162	0	717,923	98,487	160,026	2,915,648
OHIO	3,444,299	2,148,673	3,093,140	1,014,562	0	856,338	251,326	6,227,206	17,035,544
OKLAHOMA	1,541,356	767,842	4,718,840	86,064	0	2,829,988	202,901	678,746	10,825,737
OREGON	572,393	173,465	1,317,789	192,160	25,082	186,197	33,648	656,180	3,156,914
PENNSYLVANIA	2,752,774	967,032	736,079	3,500	0	192,950	139,855	126,455	4,918,645
RHODE ISLAND	35,600	29,900	23,500	0	0	11,900	47,100	0	148,000
SOUTH CAROLINA	1,107,391	326,187	695,350	218,123	0	3,800,505	258,850	579,252	6,985,658
SOUTH DAKOTA	508,571	131,299	328,096	107,124	250	28,850	71,985	51,987	1,228,162
TENNESSEE	891,345	262,390	479,941	187,902	0	654,311	319,263	56,222	2,851,374
TEXAS	2,110,800	781,214	3,806,049	433,045	0	2,105,388	366,002	416,464	10,018,962
UTAH	505,138	359,500	5,057,600	133,000	500	39,730,200	161,500	0	45,947,438
VERMONT	191,258	8,748	1,021,996	30,775	0	390,900	34,000	288,641	1,966,318
VIRGINIA	604,201	135,034	240,773	504,526	0	470,954	4,707,360	108,086	6,770,934
WASHINGTON	309,100	435,000	597,250	8,400	8,600	170,000	846,750	42,300	2,417,400
WEST VIRGINIA	322,120	212,895	307,000	18,185	0	2,624,531	85,010	28,100	3,597,841
WISCONSIN	1,966,695	1,718,663	2,324,915	328,650	0	444,222	161,486	3,645,514	10,590,145
WYOMING	405,700	406,100	689,800	49,500	14,300	46,200	80,000	145,600	1,837,200
TOTAL:	64,337,116	26,949,972	86,360,564	14,797,645	2,335,302	100,699,543	21,394,576	40,195,965	357,270,603

TABLE 1

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

NATIONAL SUMMARY ESTIMATES - CONTRIBUTIONS OF FUNDS AND SERVICES TO
SOIL AND WATER CONSERVATION DISTRICTS PROGRAM
FISCAL YEAR 1984 - (DOLLARS)

STATE	STATE GOVERNMENT	LOCAL GOVERNMENT	OTHER	FEDERAL NON-SCS	TOTAL
ALABAMA	838,979	1,018,555	942,462	20,000	2,819,996
ALASKA	672,580	517,000	193,750	40,000	1,423,330
ARIZONA	640,660	3,465,925	2,423,927	266,814	6,797,326
ARKANSAS	4,121,200	1,868,100	6,238,700	49,200	12,277,200
CALIFORNIA	1,383,000	9,849,273	4,578,426	37,275	15,847,974
CARIBBEAN AREA	3,652,614	970,900	1,673,880	0	6,297,394
COLORADO	648,440	1,175,470	1,500,836	100,100	3,424,646
CONNECTICUT	235,600	201,350	647,210	0	1,084,160
DELAWARE	2,939,800	345,130	913,680	0	4,198,610
FLORIDA	205,000	1,564,332	261,216	0	2,030,548
GEORGIA	1,751,500	3,140,300	1,190,800	0	6,082,600
HAWAII	349,848	387,748	592,980	26,000	1,356,576
IDAHO	738,552	680,471	1,134,814	214,600	2,768,437
ILLINOIS	2,181,825	3,014,890	2,862,853	0	8,059,568
INDIANA	1,202,780	2,425,379	3,353,332	1,350	6,982,841
IOWA	14,569,122	3,455,948	3,663,097	100	21,688,267
KANSAS	2,088,615	4,442,337	3,416,021	2,300	9,949,273
KENTUCKY	3,809,146	1,086,721	1,169,191	1,800	6,066,858
LOUISIANA	4,884,000	2,386,000	3,513,000	120,000	10,903,000
MAINE	170,274	185,062	496,465	0	851,801
MARYLAND	1,912,489	1,554,347	384,980	0	3,851,816
MASSACHUSETTS	586,520	560,950	305,850	0	1,453,320
MICHIGAN	3,609,400	2,201,575	1,354,150	401,600	7,566,725
MINNESOTA	7,563,821	6,340,339	2,209,953	0	16,114,113
MISSISSIPPI	463,062	1,516,101	2,031,237	9,000	4,019,400
MISSOURI	3,624,190	3,190,910	4,653,690	77,100	11,545,890
MONTANA	1,398,854	2,531,059	1,631,831	93,250	5,654,994
NEBRASKA	3,743,638	10,859,969	714,557	58,027	15,376,191
NEVADA	14,250	184,634	241,467	1,000,000	1,440,351
NEW HAMPSHIRE	17,111	176,123	68,938	0	262,172
NEW JERSEY	366,178	3,762,815	305,979	0	4,434,972
NEW MEXICO	264,675	373,883	910,183	192,000	1,740,741
NEW YORK	1,513,636	6,309,540	1,705,029	400	9,528,605
NORTH CAROLINA	2,698,000	4,761,433	2,681,175	18,260	10,158,868
NORTH DAKOTA	708,426	1,538,452	668,770	0	2,915,648
OHIO	10,102,421	3,976,651	2,956,472	0	17,035,544
OKLAHOMA	3,307,326	2,696,372	4,822,039	0	10,825,737
OREGON	495,126	955,998	1,536,330	169,460	3,156,914
PENNSYLVANIA	1,117,347	2,585,257	1,216,041	0	4,918,645
RHODE ISLAND	36,100	72,700	39,200	0	148,000
SOUTH CAROLINA	1,762,073	4,400,280	785,305	38,000	6,985,658
SOUTH DAKOTA	87,690	670,358	439,994	30,120	1,228,162
TENNESSEE	279,271	1,282,592	1,214,727	74,784	2,851,374
TEXAS	1,526,561	4,108,772	4,127,993	255,636	10,018,962
UTAH	14,379,238	24,403,200	7,055,000	110,000	45,947,438
VERMONT	310,371	20,570	1,630,377	5,000	1,966,318
VIRGINIA	1,233,185	1,320,565	4,197,184	20,000	6,770,934
WASHINGTON	880,100	853,500	683,800	0	2,417,400
WEST VIRGINIA	1,721,125	1,531,286	345,430	0	3,597,841
WISCONSIN	4,851,374	3,575,897	2,114,874	48,000	10,590,145
WYOMING	355,700	729,800	729,000	22,700	1,837,200
TOTAL:	118,012,793	141,226,819	94,528,195	3,502,876	357,270,683

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

TABLE 3

FUNDS APPROPRIATED BY STATE AND LOCAL GOVERNMENTS FOR CONSERVATION PROGRAMS
FISCAL YEAR 1985 - (DOLLARS)

	STATE GOVERNMENT	LOCAL GOVERNMENT	TOTAL
ALABAMA	1,581,353	779,956	2,361,309
ALASKA	2,284,590	165,400	2,449,990
ARIZONA	617,067	4,187,119	4,804,186
ARKANSAS	3,190,000	492,700	3,682,700
CALIFORNIA	1,740,000	6,257,753	7,997,753
CARIBBEAN AREA	3,263,200	12,000	3,275,200
COLORADO	332,259	311,762	644,021
CONNECTICUT	313,200	210,594	523,794
DELAWARE	4,958,300	276,300	5,234,600
FLORIDA	1,248,000	1,685,062	2,933,062
GEORGIA	1,934,000	2,884,000	4,818,000
HAWAII	534,728	457,762	992,490
IDAHO	1,377,388	188,885	1,566,273
ILLINOIS	3,691,000	9,902,300	13,593,300
INDIANA	840,592	2,634,406	3,474,998
IOWA	13,487,000	1,106,400	14,593,400
KANSAS	3,248,391	765,720	4,014,111
KENTUCKY	4,203,600	1,090,000	5,293,600
LOUISIANA	3,780,000	269,000	4,049,000
MAINE	1,156,395	281,587	1,437,982
MARYLAND	2,009,509	1,167,364	3,176,873
MASSACHUSETTS	318,000	265,000	583,000
MICHIGAN	1,257,550	884,000	2,141,550
MINNESOTA	7,817,134	6,828,413	14,645,547
MISSISSIPPI	183,664	1,335,118	1,518,782
MISSOURI	5,875,980	682,850	6,558,830
MONTANA	1,428,597	1,638,481	3,067,078
NEBRASKA	4,475,905	19,457,989	23,933,894
NEVADA	24,920	53,419	78,339
NEW HAMPSHIRE	12,295	112,966	125,261
NEW JERSEY	174,142	4,080,693	4,254,835
NEW MEXICO	438,551	306,050	744,601
NEW YORK	1,687,950	4,786,230	6,474,180
NORTH CAROLINA	4,066,535	3,524,037	7,590,572
NORTH DAKOTA	855,768	676,500	1,532,268
OHIO	13,901,013	3,195,801	17,096,814
OKLAHOMA	3,107,326	2,732,944	5,840,270
OREGON	163,830	570,322	734,152
PENNSYLVANIA	900,000	210,000	1,110,000
RHODE ISLAND	53,000	57,200	110,200
SOUTH CAROLINA	1,988,656	805,000	2,793,656
SOUTH DAKOTA	326,589	625,698	952,287
TENNESSEE	337,701	922,611	1,260,312
TEXAS	1,371,756	4,013,069	5,384,825
UTAH	32,491,000	5,000,000	37,491,000
VERMONT	272,343	3,570	275,913
VIRGINIA	1,597,755	1,996,052	3,593,807
WASHINGTON	1,052,100	404,000	1,456,100
WEST VIRGINIA	785,400	1,721,940	2,507,340
WISCONSIN	4,693,600	4,446,000	9,139,600
WYOMING	6,881,785	7,017,725	13,899,510
TOTAL:	154,331,417	113,479,748	267,811,165

SOIL CONSERVATION SERVICE BUDGET PROPOSAL

Mr. MYERS. I do appreciate the opportunity to appear before you as the Chief of the Soil Conservation Service. As you have mentioned, we have had a hard task putting together these budget proposals. We found it is difficult to consider both the need to reduce Federal deficits and the necessity to maintain for future generations the Nation's real wealth in terms of its soil and water resources.

The administration has taken a hard look at identifying those functions performed by SCS, which we consider to be of the very highest priority and absolutely essential to the Federal role in providing a cooperative conservation effort.

Within the resources that were available, the budget proposes a minimum level program, which permits us to provide Federal leadership for a national conservation program. We would still provide technical assistance, although at a reduced level, working with farmers and other land users, through conservation districts to address high priority resource problems caused by excessive soil erosion, inefficiencies in the use of limited water supplies.

SCS would continue to provide soil survey information to support conservation work, although we would have to postpone our goal for completing the nationwide soil survey in the next decade.

SCS would also continue to test and develop plant materials for erosion control and other high priority conservation uses.

For fiscal year 1986, the budget requests $452 million for the Soil Conservation Service. Of this amount, $252.7 million is for nonrecurring costs, such as severance pay and lump sum payments for the approximately 9,300 SCS employees who would be discharged in 1986.

The remaining $200 million would provide funding for continuing the minimum level of technical assistance and soil survey work, and for continued operation of the SCS Plant Materials Program.

Mr. Chairman, this has been a painful process for both Secretary Block and for me. We know that the proposals we are presenting here today will pose equally difficult questions for the Congress as it seeks to make the best allocation of limited taxpayers' dollars. We do believe that even with reductions in Federal conservation funding, much conservation work will still be accomplished.

Public awareness of the need to conserve soil and water resources is higher than ever. State and local conservation programs are strong and growing.

That concludes my statement, Mr. Chairman.

Senator KASTEN. Mr. Myers, I have a number of questions that I would like to submit for the record.

Unfortunately, I have to go chair another committee hearing. I simply want to say that I know it has been a long and painful process. It has had to be a long and a painful process, as you and other people working for you are essentially deciding what part of your mission you are willing to walk away from.

But the Congress is not going to support the kinds of reductions that you are testifying in favor of. All of us are going to work, albeit with budgetary constraints in mind, to save some of the fragile lands that I was describing earlier in my prepared statement.

It is just crazy to see us losing this kind of topsoil. Once it is lost, it is lost. We can't get it back.

I think that the Soil Conservation Program is one that the Congress is going to work for and support. We look forward to working with you.

Mr. Chairman, I just want to say once more, thank you for the opportunity to be with you today and testify on behalf of the soil conservation efforts. All of us on this subcommittee, with your leadership, recognize the directions that we are trying to go in, and we thank you very much.

AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE

Mr. AMSTUTZ. Mr. Chairman, I would now like to present Everett Rank, Administrator of the ASCS. In introducing him, let me also point out that several days ago, I believe it was on Friday, Secretary Block announced that 1984 crop deficiency payment checks for corn and sorghum, totaling $1.7 billion, would be distributed to farmers between the dates of April 10 and 15. Mr. Rank's agency is the agency that handles that entire payment procedure, and he has just told me this morning that those checks are being mailed to county offices this week.

Senator KASTEN. The check is in the mail? [Laughter.]

Mr. AMSTUTZ. The check is in the mail, and the county offices will be getting them out as expeditiously as possible. Obviously, the objective is to get them out as quickly as possible.

Senator KASTEN. And, I'm from the U.S. Department of Agriculture; I am here to help you out; is that right? [Laughter.]

Mr. Rank?

PREPARED STATEMENT

Mr. RANK. Thank you. In the interest of time, since you do have a copy of my statement, I would just like to have that introduced into the record.

Senator KASTEN. Without objection, it will be inserted.

Mr. RANK. My statement is very long, so I would just like to respond to any questions this committee might have.

Senator COCHRAN. There will be some, probably. [Laughter.]

[The statement of Mr. Rank follows:]

STATEMENT OF EVERETT RANK

Mr. Chairman and Members of the Subcommittee, I appreciate this opportunity to discuss the fiscal year 1986 budget for the Agricultural Stabilization and Conservation Service. Our proposals fully support the President's goal to reduce the Federal deficit. I will highlight the major proposals included in our request for conservation programs, Commodity Credit Corporation, and the administrative funding needed to carry out these programs.

Commodity Credit Corporation

Commodity Program Outlays

Net outlays for fiscal year 1986 are estimated at $10.5 billion, down $4.5 billion from the fiscal year 1985 estimate. The projected decrease is due largely to two program policy changes: (1) advance deficiency payments are being made for the 1985 crops, which shift about $2 billion in CCC outlays from fiscal year 1986 to 1985, and (2) land diversion payments are not included in the Administration's programs for the 1986 crops, as they are for the 1985 crops. The Administration has already transmitted its legislative proposals for a 1985 Farm Bill that will provide for an orderly transition to a market-oriented price support system. However, the proposals will not appreciably affect fiscal year 1986 CCC outlays since those outlays primarily relate to 1985 crops, which are covered by the 1981 Farm Bill and subsequent legislation.

FY 1986 Budget Request

Our fiscal year 1986 budget proposal reflects appropriation language changes which would provide permanent, indefinite appropriation authority for the Treasury to reimburse CCC for its net realized losses. This reimbursement would be provided directly from the Treasury to cover losses for CCC activities that have already received congressional approval. Under this concept, we would request reimbursement from the Treasury for $13.3 billion for fiscal year 1986. This amount reflects $9.9 billion of estimated unreimbursed 1985 losses and $3.4 billion of anticipated 1986 losses.

Conservation Programs

Mr. Chairman, the proposed termination of ASCS conservation programs beginning in 1986 epitomizes the very difficult choices this nation will face in the coming months and years in attempting to reduce the escalating Federal deficit. During the years that these cost-share programs have been in effect, farmers have increasingly recognized the importance of conservation and the role that it plays in their very livelihood. With the proposed elimination of conservation cost-sharing by the Federal Government, we believe farmers will continue to preserve their land on their own because it pays. There are encouraging signs that this is happening. For example, farmers that used conservation tillage for the first time in 1983 total more than 10 percent of all farmers who now use that practice. Yet only about 12 percent of these farmers using the practice for the first time reported receiving any cost-share assistance to make the change. This means that most farmers who adopted conservation tillage in 1983 did so without government cost-sharing. Furthermore, the incentive provided to those who did receive government assistance was limited to partial cost-sharing for just one to three years.

No doubt these farmers were influenced by field day demonstrations, trial plots or other information and education activities of Federal and State agencies, or by the favorable experiences of other farmers. This demonstrates that farmers are concerned about conservation and do carry out effective measures on their own.

Also, an increasing number of States are providing funds to assist farmers with conservation measures. We believe that a truly healthy economy is, in the long run, the best assistance a farmer or rancher can receive, and our conservation proposal is intended to contribute in part to that objective.

Administrative Support

For fiscal year 1986 we are proposing several important changes in the funding for the ASCS consolidated Salaries and Expenses account. First, in an effort to reduce Federal expenditures in the administration and delivery of farm programs, we plan to implement user fees in county offices. User fees will be charged to recover county office personnel costs related to those programs in which a producer receives a direct benefit, such as loans and program payments. These revenues, estimated at $46.3 million for fiscal year 1986, reduce the amount of funds we would otherwise request be transferred from CCC to the ASCS Salaries and Expenses account. This in turn will reduce the Federal deficit. While these new user fees can be implemented with existing authorities, changes in appropriation language are necessary for 1986 to insure funding in the event projected levels of receipts do not materialize. Fees on loan activity would begin with the 1985 crops.

This change in language would authorize additional transfers to ASCS from the Commodity Credit Corporation subject to approval by the Secretary of Agriculture, but only in the amount that collections from user fees are less than the amount shown in the budget. The ASCS plan to charge for county office functions related to direct producer benefits covers only about 14 percent of county office workload. The authority to provide for any shortfall in fees is essential to fund county office operations at a level sufficient for the proper administration of farm programs, since staff must be maintained to carry out extremely volatile program operations whether they are user or non-user fee related.

Second, termination of ASCS conservation programs will eliminate the need for direct appropriations for the ASCS consolidated Salaries and Expenses account, since the direct appropriation has traditionally provided for the operation of our conservation programs. We anticipate that zero funding for conservation programs will decrease fiscal year 1986 conservation-related work by approximately 65 percent. The remaining 35 percent for overseeing the completion of agreements is proposed to be funded through CCC transfer authority.

Third, legislation proposed in the Budget would modify ASCS county and community election procedures to provide estimated cost savings of $5.6

million. The proposed legislation would change the annual community committee elections from every year to once every 3 years. In addition, county committee elections would take place in only one of three communities each year. County committee members would continue to serve 3-year staggered terms.

Finally, we project that full implementation of the State and County Office Automation Project by mid-1986 will save approximately $12.1 million in labor costs in county offices for fiscal year 1986. We also expect to attain staff-year savings in our Kansas City field offices as a result of this automation. Other staff-year and monetary savings will also be realized in 1986 as a result of two modernized inventory tracking systems we are installing in our Kansas City field offices.

Mr. Chairman, this concludes my prepared statement. I will be happy to answer any questions you may have.

FUNDING REDUCTION FOR CONSERVATION PROGRAMS

Senator COCHRAN. Mr. Secretary, are there any other statements by any of your other witnesses?

Mr. AMSTUTZ. Not in this particular panel, Mr. Chairman. In the next panel we will have some.

Senator COCHRAN. I notice that in the proposal from the Soil Conservation Service, there is a very sharp reduction in funding requested for our traditional soil conservation efforts. As a matter of fact, there is included in this proposal the elimination of over 9,000 employees in the Soil Conservation Service. Most of them have requested an opportunity to testify when general witnesses are to be heard from. [Laughter.]

CONSEQUENCES OF REDUCED FEDERAL FUNDING

That, of course, is a little sarcasm, but we do have a period of time which we traditionally set aside for public witnesses when we have heard from all of the Departmental witnesses and Agency representatives, and you would be surprised to know of the large number we have heard from who are requesting an opportunity to testify, many of them on this part of the budget.

I think that we have hit a nerve, and that you have submitted a request to the committee which has provoked a great deal of controversy and difference of opinion.

What would be the practical consequences to our soil and water conservation efforts if this committee approved the budget request as submitted, Mr. Myers? Is there any way to measure the practical consequences of this kind of request?

Mr. MYERS. It would be hard to measure the practical consequences, but I feel very strongly that we have many State and local organizations that are now active in soil conservation, especially in the Midwest, where we have our highest soil losses.

We also have a strong program going with conservation tillage that the farmers themselves are doing. So I think we could still have dramatic reductions in soil losses, even with reductions in Federal funding.

TECHNICAL ASSISTANCE ORGANIZATIONS

Senator COCHRAN. In the area of the country that I represent, I know that we do not have any existing organizations that would take the place of the effort being made by the Soil Conservation Service. We depend quite heavily on the Federal program to help take care of erosion-prone land by providing technical and financial assistance in this troublesome area of concern. About $30 million goes to Mississippi under SCS and ASCS programs. So it is a substantial contributor to our conservation effort.

What would happen in those areas where we don't have private resources or other organizations that would take up the slack?

Mr. MYERS. There is a very strong group of conservation districts, and we will, in our proposal, average at least one Federal employee per conservation district. I feel with the strength of these local people in the conservation districts and the Federal employee, we still would have an active program, although on a reduced basis. There is no doubt about that.

I also would hope that the farmers of the Nation would recognize that it is their resources that we are dealing with. They are showing this now in the way they are accepting conservation tillage and some of the other cost-effective practices. We could and would continue a strong conservation program, although at a reduced level as far as Federal technical assistance is concerned.

UNCOMPLETED SMALL WATERSHED PROJECTS

Senator COCHRAN. What would happen to watershed projects that have been authorized and planned for construction? Would these be targeted for elimination, or what would be the plan of SCS with respect to projects that are under way or that are planned to be constructed in the near future?

Mr. MYERS. If the funding had not been committed to those projects, they would not be completed, unless they were completed by the local sponsors.

Of course, every watershed project that the Soil Conservation Service funds has to have a local sponsor. I think in some cases the local sponsor would continue these projects. If a project was dependent on Federal funding, it would probably not be completed at this time.

They could be delayed and done later when, hopefully, we get the Federal deficit under control.

TARGETED FUNDS

Senator COCHRAN. There has been some discussion in recent years about targeting funds to the most erosion-prone areas, trying to use those funds in the areas of greatest need. What is contemplated in this proposed fiscal year budget with respect to targeting?

Mr. MYERS. The concentrated targeting effort and the magnitude of Federal employees and dollars would be diminished. We would still have some employees beyond the one-per-district average that would go into these targeted areas, but not as great a level of effort as we have now.

Of course, we feel that the targeting effort has been very successful in shifting employees and dollars to these highly erosive areas and the areas that have high problems of water loss, where we are emphasizing water conservation.

We would not be able to target at the level we are now.

STATEMENT OF SENATOR MATTINGLY

Senator COCHRAN. I am going to recognize Senator Mattingly at this point. He has another hearing to attend and would now like to present his statement and questions for the record.

Senator Mattingly?

Senator MATTINGLY. Thank you, Mr. Chairman. I would just like to welcome you all here today. I do have a statement for the record and questions, also. I wish I could stay, but I have to go meet with the Farm Bureau for my State, and then I think there is another hearing after that, but thank you very much, Mr. Chairman.

Senator COCHRAN. Thank you. Thank you very much, Senator, for being here.

[The statement of Senator Mattingly follows:]

STATEMENT OF HON. MACK MATTINGLY, U.S. SENATOR FROM GEORGIA

Mr. Chairman, I have only a few brief opening remarks for today's hearing relating to agricultural export credit and the Public Law 480 programs. We are all aware of the critical problems which our American farm producers have been increasingly facing over the past 4 or 5 years. I really don't think it is necessary for me to sit here today and recite all of the various contributing factors which have led American agriculture to some of the worst days we have experienced since the Great Depression. Just to mention a few, we could remember the spiraling inflation and outrageous interest rates of the late 1970's. Then toss in a grain embargo and contradictory, self-defeating Government programs which financed and encouraged expansion and greater production on one hand while simultaneously trying to reduce production on the other hand to raise market prices. Add to that various natural disasters, droughts, and the recession which took hold in 1980 and resulted in reduced Federal revenue, increased outlays for unemployment compensation, food stamps, and other social services. All of which factors have contributed to the $200 billion Federal deficit which hangs ominously over our hopes for continued economic recovery. Well, I suppose those few factors alone could fill volumes of hearing records.

However, Mr. Chairman, despite all our other setbacks agricultural exports have remained one of the few bright spots for our overall balance of trade, although the strength of the U.S. dollar and foreign export subsidies and trade barriers have deeply eroded even this asset. Without this export outlet, the magnitude of our domestic farm producers' economic agonies would be multiplied tremendously. Thus, one of the most crucial elements in helping to ease our domestic farm crisis and our trade imbalance are the export credit and concessional sales programs administered by USDA.

Now even these vital programs have been dealt a double body blow within just the past few weeks. One was the decision by the administration to reduce available assistance for export credit arrangements and to charge new "loan initiation" fees which will lessen the effectiveness of the credit programs. The other came in the form of the recent court decision on cargo preference requiring blended credit cargoes to be carried on higher priced ocean vessels. This even further saps the vitality from export assistance programs and hinders disposition of U.S. commodities abroad. Either one of these events would have been damaging in and of itself. Taken together they may prove fatal.

In 1984 the Commodity Credit Corporation Export Credit Program amounted to $4.18 billion in export loan guarantees and $146.9 million in direct loans. This year it is estimated that the program will involve $5 billion in loan guarantees and $325 million in direct loans. I would like to point out that these are programs that do not result in a permanent expenditure of Treasury funds in general. Payment of the guaranteed loan means that the bulk of these commitments never actually results in any large outlay in the first place. Only in the much smaller Blended Credit Program are there any actual "costs" and even those are miniscule when one considers that the Treasury receives other revenues as a result of the economic activity generated by the sales. For 1986, elimination of the direct loan portion of the export program is proposed. I feel that elimination of this authority would be counterproductive particularly in view of the administration's support of proposals to exempt the Blended Credit Program from the Cargo Preference Act.

Early last month, a U.S. district court said the Blended Credit Program falls under the Cargo Preference Act, which in turn led the Agriculture Department to suspend the Farm Export Program. USDA reasoned, and rightly so, I believe, that the Government would have to pay millions of dollars more in freight differentials to cover higher U.S. shipping costs.

USDA's budget should not have to bear the cost of ocean freight differentials required to ship on U.S. vessels. A major share of the cost of the cargo preference requirements is borne by the Food Aid Program, Public Law 480—over $75 million last year. I am hopeful that the district court's ruling will be overridden by the Congress if necessary to protect and preserve this vital export tool.

On the one hand the administration appears to be supporting attempts to free agricultural exports from the burden of cargo preference requirements, yet on the other hand removing an important program which helps our farmers to sell abroad and which contributes to farm income here at home. What is the use of removing a major cost burden while abruptly eliminating an important means to take advantage of the more profitable trade environment? Exemption from cargo preference requirements in tandem with, say, direct loan authority frozen at current levels would offer U.S. farmers a unique opportunity to seek and maintain overseas agricultural markets.

Let me close by saying that it is no secret that I would support an across-the-board budget freeze in almost every program. However, Mr. Chairman, I would also add that there are some rare instances when maintaining present—or even slightly increased—program levels does result in increased Treasury revenues from other sources and which also have the effect of providing some relief for distressed sectors of the economy. The export assistance programs for agricultural commodities and products is one of those areas. I think that in any attempt to significantly impair the operation of these programs we will find ourselves cutting off our nose to spite our face.

Thank you.

CONTRACTUAL TECHNICAL ASSISTANCE ACTIVITIES

Senator COCHRAN. In the proposed budget, there is a technical assistance program that would utilize non-Federal contract workers. What is the role of these contract workers, and how will they be worked into the Soil Conservation Program?

Mr. MYERS. Mr. Gardner will answer that.

Mr. GARDNER. Mr. Chairman, for the program that continues beyond fiscal year 1986, it is anticipated that there would be sufficient funds to contract about 800 FTE annually. These would likely be technicians at the district level.

Senator COCHRAN. They would be likely to be what?

Mr. GARDNER. These people would likely be technicians at the district level.

Mr. MYERS. We would contract for these people, Mr. Chairman, with SCS funds. They would not be Federal employees. We would contract for their employment by districts.

Senator COCHRAN. What would they do?

Mr. MYERS. They would probably do on-the-ground work, such as helping with conservation tillage or designing terraces, designing grass waterways, or that type thing.

FEDERAL TECHNICAL ASSISTANCE ACTIVITIES

Senator COCHRAN. If the Congress were to approve your budget request and eliminate 9,300 employees, what kind of administrative structure would you imagine this would leave for the Soil Conservation Service? You mentioned that you would have one employee per conservation district. What would that employee do besides answer the telephone?

Mr. MYERS. The remaining SCS employees would be out in the field working with conservation districts and the farmers and ranchers to identify resource conservation needs; to oversee planning for effective solutions; and to provide technical oversight to district employees and others as conservation measures are applied. We hope that there would still be office secretaries who would be provided by the districts to answer the phone and do the paperwork, and that the Federal employee would continue to function in the field.

Senator COCHRAN. I am going to reserve the balance of my questions and recognize Senator Bumpers at this point.

Senator BUMPERS. I really haven't had a chance to go through the testimony, Mr. Chairman, but I would——

Senator COCHRAN. You don't want to. [Laughter.]

FUTURE SOIL CONSERVATION

Senator BUMPERS. Well, Senator Cochran and I both just came from the Subcommittee of Appropriations dealing with flood control projects, and we told them that they were "preaching to the saved" down there. We are in agreement. We both felt a strong obligation to get up here, because we couldn't find a more divergent disagreement than I think

Senator Cochran and I both share for the proposals as far as SCS and ASCS are concerned.

Let me just ask you, Mr. Myers, what is going to happen to soil conservation in this country? You are proposing to go from $854 million in 1985 to $280 million in 1986.

What are we going to do for soil conservation in the country?

Mr. MYERS. We are going to rely, first of all, on the landowners and the farmers; and we will also depend very heavily on the soil conservation districts. I know the districts in your State are very active and will continue to function effectively with guidance from our Federal employees.

We are going to rely on the States that have active programs and/or State employees to continue soil conservation work from the State level, as well.

So, we will still have many people working on soil and water conservation. I think the key is the landowners who are concerned with their resources. As I mentioned earlier, we are looking at a very cost-effective means of controlling erosion through conservation tillage and no-till that the landowner can implement himself.

I think we have made great strides. We can still have a lot of conservation on the ground without all of these Federal employees.

SOIL CONSERVATION STEWARDSHIP

Senator BUMPERS. Mr. Myers, you know, I would not presume to talk to you about soil conservation, because you are an expert. I have lamented in many speeches in my home State and here on the floor of the Senate about what I think is one of the most critical problems facing the country. Yet you couldn't get a television camera to cover this hearing this morning because, with what we are talking about on soil conservation, the real devastation of doing nothing won't be felt for another 20 or 30 years. Of course, that is what Iowa thought 20 years ago.

Now, in my State, we are losing about 5 tons of topsoil per acre per year. Tennessee, just to the east of us, is losing 16; Missouri to the north, obviously, somewhere between 12 and 16 tons a year; 5 billion tons of topsoil a year in the United States either being relocated or lost by silting and so on.

As I say, it is unbelievable the lack of stewardship in this country on this issue. I would rather cut anything the President is asking me to cut than soil conservation.

Now, it may be that the Soil Conservation Service has not been as good as it should have been in dealing with the problem. I have consistently said about the PIK Program that people ought not to be entitled to PIK payments unless they are willing to put the idled acres into soil conservation practices. Incidentally, I feel the same way about land acquired by any of those Federal agencies, the Federal Land Bank, and particularly the Farmers Home Administration. Lands they have foreclosed on, in my opinion, ought to be held for 5 years, put into good soil conservation programs, and not tilled. Then, as a sequel to that, they should allow the farmer they foreclosed on to redeem it sometime during that 5-year period.

You talk about penny-wise and pound-foolish, this is really an outrage, to start talking about cutting soil conservation funds, when I personally feel—and I am just speaking for myself—that it ought to be one of the top priorities in this country.

How do you personally feel about it? Do you think we are going to get the same bang for $200 million we are getting for $854 million?

OWNER AND OPERATOR CONSERVATION PRACTICES

Mr. MYERS. I personally feel that the way we are going to effectively get it done is for the people who either own or operate the land to be concerned about it and to get out and work on the conservation practices.

I think that as we educate these farmers and ranchers about what they are losing through soil erosion, they are going to do conservation themselves.

Senator BUMPERS. Why do you think this when they have not in the past?

Mr. MYERS. This is the direction we are going in both the Soil Conservation Service and the ASCS, both emphasizing the importance of conservation practices instead of production practices.

We are also emphasizing cost-effective conservation. We have not previously shown the dollars and cents that farmers are losing when they lose soil. We are proceeding to do this now.

I think as they realize this, and this can be done through the Extension Service as well as SCS, they are going to take a hard look at what they are losing in bushels, or nitrogen, phosphorous, and potash from their soil, instead of just the moral view of not having soil left.

VOLUNTARY VERSUS MANDATED CONSERVATION PRACTICES

Senator BUMPERS. You know the State of Iowa has adopted some very stringent penalties against farmers who don't engage in certain practices. They are so dynamic and so stringent because they no longer have a choice. For years and years and years, the farmers of Iowa have been mining their soil, but it is not unique. It just happens that the topography of Iowa brought it home to them a lot faster than it has in the Delta in my State and Mississippi, where it is all flat and the topsoil was much deeper to begin with. You are saying we are going to depend on the farmers, but the reason the Soil Conservation Service exists and the reason the laws are so tight in Iowa is because the farmers have not done it, and I am not blaming the farmers.

I am just simply saying that what you are saying is a wish and is something that has no historical background and basis for believing.

Mr. MYERS. I am not saying it is a wish. I think it is an accomplished fact. Being a farmer myself, I know what motivates me, and it is economics. If I can prove to a farmer economically, in dollars and cents or bushels, that he should take care of the soil, I think we are going to see the farmers doing it.

ECONOMIC PRIORITIES AND INCENTIVES

Senator BUMPERS. Listen, if I could convince the President of the follies of the economics of the MX, I would feel like I had died and gone to heaven, but I don't think I am having much luck with him.

I don't think you are having much luck with the farmers by telling them to use soil conservation when they don't have enough money to go down to the seed store and put seed in the ground.

Mr. MYERS. We are telling them they will save money in many situations by practicing good conservation.

NATIONAL INTEREST IN SOIL CONSERVATION

Senator BUMPERS. I am a farmer—used to be; I still have my farm. My wife says I am a professional malcontent. The only thing I ever enjoyed was raising cattle and farming.

If it weren't for ASCS, I wouldn't have done a lot of things—liming it, putting in permanent pastures, and all that sort of thing. Their participation convinced me it was economically feasible to do it. I can promise you I wouldn't have done it, because I couldn't afford to do it back when I bought the farm.

I believe that Government is intruding, and I think Government has been into too many things. I subscribe to some of the things the Grace Commission has said, and I know that people ought to do for themselves. But let me ask you this fundamental question: Do you think that the people of the United States and the U.S. Government have an overriding—I don't want to say a right—but an overriding consideration where soil conservation is concerned that transcends the sort of haphazard approach that we would be taking by saying: We hope you will do it, but if you don't, obviously, you will pay a heavy price because it is your land you are losing.

Do we in the United States have an overriding interest that transcends the personal interests of the farmer in case he doesn't see it the same way you do? Do my grandchildren have a right to expect us to be saving the soil for them and not just worrying about the bottom line, for example?

Mr. MYERS. I believe that our future generations have a right to have all of the resources that we now have in this country, but I also would hope that the Government would not dictate to landowners, especially from the Federal level.

I know you feel the same way about that.

PRESERVING THE SOIL

Mr. AMSTUTZ. You ask a deep question, Senator, and it is difficult to even attempt to answer succinctly. To the extent the question is: "What is by far the most precious natural resource of this country?" I think the Department of Agriculture unanimously would say "the land." This is our wealth and the wealth of future generations.

Of course it is precious. Clearly, there are differences of opinion as to how best to address the question of preserving that land.

FEDERAL ROLE IN SOIL PRESERVATION

Senator BUMPERS. You know, as a famous philosopher said one time, that there is nothing more utterly impossible than undoing that which has already been done.

Now, if you are guessing wrong, and soil erosion continues to grow, and the problem continues to grow to the detriment of not just my generation but my yet unborn grandchildren's generation, it is too late. You can't undo the loss of topsoil. You can't undo clearcutting of a forest on a hillside and destroying the land for all timber purposes in the future.

Now, the reason I am such an ardent conservationist is because this country in the past has been, on occasion, subjected to the "rape, ruin, and run" boys. I don't want that to happen anymore. I believe that the farmers, for the most part, are good stewards of the land.

I agree with you on that, Mr. Myers, and I understand the President's philosophy that Government has no role in much of anything. I subscribe to that, to a point, but I am just simply saying that when a nation has an overriding interest in our future, the very existence of our future, we can't afford to be gambling with the kinds of things you are proposing here, and I think it is really a dicey game. I can tell you now, I'm not going to vote for it.

I may get rolled on it. I have been rolled a lot the last 4 years, and I have voted for a lot of budget cuts. There are a lot of places where I think we ought to get Government out of people's lives and out of their business, but when it comes to something as fundamental as saving our soil for future generations, I belong to the "wait just a minute" club. I am not going to vote for this.

Thank you, Mr. Chairman.

Senator COCHRAN. Senator Sasser?

ECONOMIC SURVIVAL VERSUS CONSERVATION PRACTICES

Senator SASSER. Thank you, Mr. Chairman. Just let me say that I subscribe to the statements that my colleague, Senator Bumpers of Arkansas, has made. I think it is absolutely outrageous that we should be sitting here looking today at an effort to emasculate the Soil Conservation Service. That is all it amounts to. I happen to represent a State which has the dubious distinction of being No. 1 with regard to the problems of soil erosion. I remember when I was a boy growing up in west Tennessee—not too far from Mississippi, Mr. Chairman—you could throw a rock over the line into Mississippi.

Senator COCHRAN. You wouldn't hit anything, though. [Laughter.]

Senator BUMPERS. I missed that.

Senator COCHRAN. There are just woods up there.

Senator SASSER. What you hit over there in Mississippi, and what you found around Tennessee, were gullies so deep it looked like you could look down and see China in the bottom of them.

We have made a lot of progress over the years in my State with soil erosion, and it has come about as a result, I think, of the efforts of the Department of Agriculture, and of the efforts of the Soil Conservation Service.

Nobody is going to make me believe that, given the present state of the agricultural economy, the farmers are going to put soil conservation at the top of their list. That is last.

In other words, what they are looking at is the bottom line and fighting to survive on a year-by-year basis. I think good land and water conservation practices are going to be something that is going to be at the bottom of their list.

Oh, sure, they will say: We will get around to it next year or the year after or when times get better.

But in the process, the land is washing away.

So I was, frankly, chagrined when this administration came to office and, for the first time in the history of the Soil Conservation Service, we had an administrator who was appointed, not from the professional ranks of that agency. I thought that signaled that something was amiss at that time, and now I see the direction that it is going in.

What we are seeing is essentially a dissolution and destruction of this very vital Federal agency that deals with preserving the soil of this country and topsoil for future generations.

I fly over Memphis, TN, and I see where the Mississippi River comes down through west Tennessee and just turns brown with our topsoil, of course, washing it down to the Mississippi Delta. I expect you welcome it down there, Mr. Chairman, but we want to keep it in Tennessee.

So I am going to join my distinguished colleague from Arkansas in saying that I repudiate this effort to severely cut—in my judgment, emasculate—the Soil Conservation Service, and I am going to strive hard in this committee and on the floor of the U.S. Senate to see that these funds, or a substantial portion of them, are put back.

Thank you, Mr. Chairman.

OLD HABITS DIE SLOWLY

Senator BUMPERS. Mr. Chairman, do you remember the old story I am sure these gentlemen remember about the youngster who went off to college during the Depression and studied agriculture? He came home and told his daddy he ought to terrace the land. The father said, "Son, don't try to tell me how to farm. I wore out three farms before you were born." [Laughter.]

Senator COCHRAN. Is that it? [Laughter.]

Senator BUMPERS. He said, [laughter] "Don't try to tell me how to farm——" [Laughter.]

Senator COCHRAN. Oh. [Laughter.]

ENCOURAGEMENT FOR APPROPRIATE LAND USE

I notice in connection with the ASCS conservation budget that there is no request for funding of the Agricultural Conservation Program or the Forestry Incentives Program, which is very popular in the Southeast. Those programs were designed to encourage farmers to make the best use of their land from a conservation standpoint.

A lot of farmers were trying to farm marginal lands and put into row crop cultivation land that ought to be in pine trees. The Forestry Incentives Program was one of our ways to encourage the appropriate use of the land, from a conservation standpoint and from an economic standpoint.

I worry that the elimination of this program might really lead to misuse of lands. I had introduced a bill last year—Sam Nunn is cosponsoring it, as a matter of fact—to try to provide an alternative to foreclosure on some of these heavily mortgaged farms by agreeing to forgive some of the Farmers Home debt if farmers would take that land out of production and plant it in pine trees.

What is the reaction, Mr. Amstutz, or Mr. Rank, whoever wants to talk about this, to innovative programs of that kind? Wouldn't we be wise to provide some kind of incentives to try to get these marginal lands used in a more appropriate way than row cropping, which just adds to the conservation problems and adds to the economic woes of a lot of these farmowners?

FORESTRY INCENTIVES PROGRAM

Mr. RANK. Mr. Chairman, certainly, the FIP program has been a very efficient program for educating the farmer to put the land to better use. One of the reasons farmers take land out of trees and put it into cropland is that the farm programs of the past put pressure on the farmer to get the most production out of the land.

Land was generally taken out of trees and put into a crop to get higher prices. Now, I realize that that was probably not the best use for the land in the long run. In the FIP program, many State foresters and various industries are deeply involved in the restoration of forests today. This is, however, one of those programs that could, because of the deficit, be eliminated. This would address the real problem in the country, which is the pressure the farmers feel because of the high cost of operating, and that goes for all of our programs where we are asking for cuts.

PROPOSED LEGISLATION

Senator COCHRAN. One other piece of legislation that was just recently introduced here in the Senate is a companion bill to a bill introduced in the House by Congressman Webb Franklin of Mississippi. The legislation is designed to provide incentives similar to that just described in the case of bottomland, or hardwood land, that had been cleared and put into production when it never should have been cleared.

We have seen in the Mississippi Delta, particularly, a lot of wildlife habitat and forest lands converted to row crop use that now are not producing yields in sufficient quantities to justify the farming of that land.

We have seen, instead, a lot of farmers getting into trouble trying to grow soybeans on that land, which is naturally wetter than normal farmland or better farmland in those areas. A lot of debt has been accumulated now.

The Government is going to end up owning that land, and it is not going to have much when it forecloses.

This legislation would permit the Farmers Home Administration, with the advice and consent and in consultation with the Fish and Wildlife Service, to negotiate an easement that would be granted to the Government for wildlife habitat use if this land is put back into hardwoods—bottomland hardwoods—rather than continued under cultivation.

Has your agency or has the Department had an opportunity to complete its review of that legislation so that we could expect a recommendation to be submitted one way or the other on whether you could support that legislation?

Mr. AMSTUTZ. Mr. Chairman, no, we have not completed an analysis of it. I am embarrassed to say this is the first I have heard of it.

Senator COCHRAN. It is a big Department, and I don't know who has it over there. Somebody over there has been looking at it.

Mr. AMSTUTZ. We will check into it as soon as we go back and let you know.

Senator COCHRAN. Who would have that? Who would know?

Mr. AMSTUTZ. Certainly, it should go to ASCS.

Mr. RANK. Or FS. We will find out.

Mr. AMSTUTZ. We will find out.

Senator COCHRAN. We have been talking about it for months.

Senator BUMPERS. This is the first I have heard of it.

Senator COCHRAN. I sent a "dear colleague" letter out to all Senators inviting cosponsorship of the bill, and some have responded, I think. So we are trying to get some attention to that problem. We think it is an innovative approach.

Frankly, it was presented to me by the State director of our Farmers Home Administration, who feels that there is an alternative to foreclosure of those farms where you could be changing the use to which that land is put if the Government would get involved in an innovative way.

I think it is a conservation bill, and we can look at it from that standpoint.

Mr. AMSTUTZ. We will look into it, Mr. Chairman.

EMERGENCY CONSERVATION PROGRAM

Senator COCHRAN. The Emergency Conservation Program is one that assists farmers in rehabilitating land damaged by natural disasters.

I understand that there is no budget request for that program either, but there is a $3.5 million carryover. Will ASCS personnel be involved in carrying out this program? What are you going to do with that money if you terminate that program?

Mr. RANK. It is correct that we have a zero request, Mr. Chairman. However, we have about $7 million in that fund which has not been allocated to States. One of our problems is trying to anticipate when a disaster might happen out in the country.

Generally, that has been enough money to take care of the annual needs when they arise. So we think $7 million is adequate to take care of any foreseeable needs, unless there is a major, widespread disaster somewhere. When current funds are expended, the budget proposes termination of the program.

SUBMITTED QUESTIONS

Senator COCHRAN. I appreciate this panel's being here, contributing to our understanding of the budget request.

We have some further questions regarding the Department's soil conservation efforts, which we will submit for the record.

[The following questions were not asked at the hearing but were submitted for response for the record:]

SOIL CONSERVATION SERVICE

QUESTIONS SUBMITTED BY SENATOR COCHRAN

OUTLOOK FOR CONSERVATION

Question: Soil Conservation Service has a long history of service, with conservation needs and practices well publicized. Farmers still need to be educated about conservation practices, however, and they have continually turned to SCS for technical assistance. They have relied on financial aid to introduce conservation practices. With the cuts being proposed, do you feel conservation efforts will continue to get the attention they need, especially if financial assistance is not available, given the current fiscal atmosphere in rural areas today?

Answer: We believe that conservation is and will continue to be a priority concern in rural areas. One indication of this is the growth we have seen over the past few years in funding for conservation programs from nonfederal sources. Contributions of funds and services by non-SCS sources totaled approximately $357 million in 1984, an increase of more than ten percent over the 1983 level. This does not include the substantial contributions of the landowners themselves, the value of their labor and other costs which they provide to install conservation measures on the land. We believe that much of this work will continue even with reductions in funding for Federal conservation programs. Public awareness of the need to conserve our soil and water resources for future generations is higher than ever. The availability of cost-effective technologies such as conservation tillage encourage farmers to practice conservation from the standpoint of good economics which is the best incentive we have. We do not, of course, believe that all the reductions proposed for USDA conservation programs can be offset by nonfederal sources right away. Some state and local governments would need to redirect financial assistance programs, now designed to compliment Federal technical assistance, to compensate for the loss of Federal assistance. Also, some conservation work will have to be foregone or delayed until economic conditions in the farm sector are better. SCS will, however, continue to address the higher priority needs to reduce excessive soil erosion and conserve limited water supplies.

CONTINUED SCS ASSISTANCE

Question: Over half of your fiscal year 1986 budget request will go to phase-down costs, with only $200 million going to actual program activities. This is only a third of the previous level. Where will such a drastic cut leave farmers? Just how much assistance will you be able to provide with this kind of reduced funding?

Answer: Under the 1986 budget proposal, SCS would continue to provide nationwide program assistance to all conservation districts. The continuing technical assistance program provides the equivalent of one staff year of assistance per conservation district. Emphasis would be placed on conservation planning and technology transfer needed to address the more serious resource problems caused by excessive soil erosion and inefficient use of limited water supplies. We would have to reduce SCS assistance in areas where resource conditions are better, and greater reliance would be placed on districts, State agencies, and landowners for actual on-the-ground application of conservation practices. SCS would also continue to provide soil survey information and to develop plant materials for erosion control and other high priority conservation uses to support ongoing Federal, State, and local conservation programs. Cost-sharing assistance and project activities would no longer be provided, and other SCS programs for data collection, and long-range program planning would be eliminated as continuing activities. Periodic studies would be funded as needed. Even with these reductions, we believe that through the cooperative efforts of State agencies, conservation districts, and remaining SCS personnel, a significant level of assistance will be available to farmers.

NONRECURRING PROGRAM TERMINATION COSTS

Question: Of the $452.7 million request for SCS, $252.7 million is for nonrecurring costs, and only $200 million is for conservation activities. What are these nonrecurring costs?

Answer: The $252.7 million included in the budget request for nonrecurring program termination costs consists of several items including $27.4 million for lump sum leave payments and $96.6 million in severance pay for those 9,300 SCS employees who would be terminated in 1986. Another $31.5 million would be needed for miscellaneous administrative costs including contract modifications under the Great Plains Conservation Program; termination costs related to cooperative agreements, leases, and other annual rental agreements; printing costs for reducing the backlog of completed but unpublished soil surveys; the transfer of files and other material to the National Archives; and some funds for personnel transfers and the purchase of ADP equipment to realign and support remaining SCS staff. The remaining $97.2 million is for salaries and operating expenses for the 3 to 6 month period that current SCS employees would be on-board prior to the actual termination of the program activities.

PROSPECTS FOR FUTURE PROGRAM RESTORATIONS

Question: After SCS programs are eliminated, would it be possible in the future to easily resurrect the programs? What all would be involved in restoring those programs?

Answer: Those SCS programs that would be eliminated in 1986 could possibly be restored at some point in the future. However, it would take a considerable period of time to rebuild a competent, fully-trained technical staff; to reopen field offices; to update conservation and project plans to reflect changed resource conditions and conservation priorities; to reestablish effective working relationships with districts, State agencies, other conservation-oriented organizations, and landowners; to develop long-term contracts with land users under the Great Plains

Conservation Program; and to work with local sponsors to reactivate watershed projects. The 1986 budget does not envision the resurrection at some future time of those programs that would be eliminated. Rather, most of these functions would be picked up on a permanent basis by State and local agencies in cases where there was sufficient interest to do so. Some resource data collection analysis and program development activities now performed by SCS could possibly be funded on an "as needed" basis in the future. Other conservation work would no longer be a part of the Federal role.

FUNDS FOR CONTINUING PROGRAMS

Question: What dollar portion of the proposed program would be used to continue existing programs?

Answer: The $200 million proposed for continuing conservation programs would be used to maintain existing SCS programs for technical assistance and soil surveys at about 60 percent of the current level; and to continue operation of existing SCS plant materials centers.

MANAGEMENT SAVINGS

Question: How will you achieve a management savings of $10.8 million in technical assistance? What types of activities will be scaled back?

Answer: The major portion, $8.5 million, of the proposed management savings would be achieved if the proposed 5 percent reduction in Federal civilian salary rates was approved by the Congress. The remaining $2.3 million is the net effect of an increase of $1.5 million to cover the full-year cost of the Federal pay increase that was effective in January, 1985, and $3.8 million in savings for various administrative categories as directed by the Deficit Reduction Act of 1984. These savings will be achieved by:

-- reducing travel and transportation by 10.5 percent below the planned levels for FY 1985.

-- reducing costs for the operation and maintenance of the SCS motor vehicle fleet by 24 percent. This will be achieved in the short term by reducing vehicle procurements to about one-third of the normal level for 1985. Only a minimum number of vehicles will be purchased primarily as replacements for unserviceable vehicles due to accident or mechanical failure which is beyond economical repair.

-- reducing printing by 15 percent. Printing of some soil surveys will have to be delayed along with other administrative printing.

— reducing public affairs activities by 37 percent.

SOIL SURVEYS

Question: The budget calls for a continuation of basic services in the soil surveys program. Yet, for fiscal year 1987, you show a decrease to $36 million from the current level of $54 million. There is also a planned reduction in acres mapped from 40 million acres to 10 million acres, and a decrease in soil surveys ready for publication from 80 to 20. How can this be a continuation of services?

Answer: The 1986 budget proposes to continue to provide on-farm soils mapping and technical assistance to support ongoing Federal, State, and local conservation programs. This kind of "basic" assistance consists of surveying the soils on a particular farm, ranch, or other operating unit where a soil survey is not already available and where the landowner is planning to install conservation practices. Assistance is also provided to interpret and supplement existing soils data as a part of planning and installing effective conservation measures. This kind of assistance, which currently represents a substantial portion of SCS soil survey activities, is not reflected in the traditional performance measures of acres mapped and soil surveys published, but would be the highest priority need for continuing an effective soil survey program in support of continuing conservation programs at the level proposed in the 1986 budget. We do not envision a significant reduction in this kind of soil survey assistance. Project mapping, which is managed on a county or project area basis, would be significantly reduced and concentrated on those areas where soils information is urgently needed. Actual acres mapped and number of soil surveys ready for publication would be reduced by about 75% in 1986 consistent with the anticipated reduction in project mapping.

Question: The explanatory notes state that soil expertise would be utilized on an as-needed basis in "high priority areas." What areas are high priority?

Answer: High priority areas are those areas lacking soil surveys or that have soil surveys lacking the most modern data and technological application that have been identified as having the most serious soil erosion and/or water conservation problems. Priority would also be assigned to those areas impacted in the event that legislation on sodbuster control or similar conservation provisions is enacted and soils information is urgently needed to implement these kinds of programs.

Question: In your statement, Mr. Myers, you say that the goal of completing the nationwide soil survey in the next decade would have to be postponed. I understand that this is a "once-over" nationwide project to evaluate soils in every county. Is that the goal?

Answer: The Soil Conservation Service has had the responsibility for providing leadership to the National Cooperative Soil Survey for several years. The implied goal dating back to the earliest legislation authorizing the soil survey has been to provide the best available soil survey information as a basis for making decisions about land use and needed conservation treatment.

Question: How far along are you in working toward that goal?

Answer: Soil surveys that meet the current technological standards have been prepared on about 1.63 billion acres or about 84 percent of the nation exclusive of Alaska.

Question: How long, under the proposed budget, would the survey be postponed?

Answer: Under the proposed budget, completion of the "once-over" coverage of soil surveys would be postponed until well into the second decade of the next century.

Question: If Congress approved continued funding at current levels, when would the project be completed?

Answer: Current level funding would enable the completion of the "once-over" soil survey at current technological standards by about the end of this century. SCS would then need to retain a continuing capability to maintain the technical adequacy and supplement existing soil surveys as technological changes in the science and land use occurs.

Question: Has the T-value for soil been revised to reflect erosion's effect on productivity rather than simply indicating the number of tons of soil lost?

Answer: Soil loss tolerance (T-value) is defined as the maximum rate of annual soil erosion that will permit a high level of crop productivity to be maintained economically and indefinitely. There has not been a revision in the T-value definitions in the past several years. However, the soil loss tolerance concept has always included the idea that on some soils only a small amount of erosion would cause a great deal of damage in terms of productivity, whereas on other soils, erosion was less damaging. Thus, deep soils with favorable subsoils have been assigned a T-value of 5 tons, and those with unfavorable features in their subsoils have lower T-values of 4, 3 or even 2 tons. The soil loss tolerance for the latter soils is lower because, for a given amount of erosion, the damage done on-site is greater. A considerable amount of research is currently underway in USDA and various universities in this area to better identify the impact of erosion on productivity.

NATIONWIDE ORGANIZATION

Question: How will your proposal for a nationwide system of district offices be carried out: Would it be similar to any administrative structure you now have? Where would these offices be located? What would be their functions? Under this set-up, how would local technical assistance projects be administered?

Answer: The exact configuration of district offices and the SCS organization that would be needed to administer those programs that would continue after 1986 has not yet been determined. We would provide technical assistance equivalent to an average of one staff year per conservation district. In locations where travel distances are reasonable, we are considering establishing central offices similar to our present area offices where a group of conservationists would be headquartered and each assigned responsibilities for serving a conservation district. These SCS employees would provide technical supervision to district employees, if any, and do conservation planning on broad geographical areas that have critical resource problems. They would provide little on-site direct technical assistance to farmers and ranchers. Local technical assistance projects would be administered primarily through conservation districts with district employees. SCS would provide technical guidance and technical supervision.

CONSERVATION BUDGET CUTS

Question: Last year, you testified that the state-of-the-art for assigning dollar values to erosion's impact on soil productivity was beginning to emerge. You said that you hoped to have a model in operation by this fiscal year which would be able to assign a cost to erosion/productivity relationships. Have you begun using this model? Is so, what have been the results?

Answer: A model called the Erosion Productivity Impact Calculator (EPIC) to estimate the impact of erosion on productivity was finished during the past year. This model is now being used to estimate the impact of erosion on 930 different soils throughout the United States. The USDA is currently using this information to estimate the cost of erosion and to evaluate the cost effectiveness of several crop rotations, tillage practices, and other conservation systems. Results from these efforts are being analyzed and will be available later this fiscal year. They will also be used in the updated appraisal report on soil and water resources that is underway as called for in the Soil and Water Resources Conservation Act (Public Law 95-192).

Question: Have any technologies been developed to measure off-site damages of erosion (such as downstream pollution)?

Answer: The Soil Conservation Service has some efforts underway to measure the off-site damages of erosion. Several special studies have been designed to (1) measure the amount of pollutants entering a stream or source of contamination; and (2) develop methodology to model the off-site effects of erosion. The Resources for the Future Water Quality model has been developed jointly with SCS, EPA, and the USGS and is operational to assess the effects of nonpoint source pollution. The results of this model are currently being verified and will be included in the updated RCA appraisal report now in process of being prepared. We are providing a copy for the record of an article that appeared in the Journal of Soil and Water Conservation which provides a good synopsis of current thinking as to the off-site damages and costs associated with soil erosion. [The information follows:]

[From the Journal of Soil and Water Conservation]

THE OFF-SITE COSTS OF SOIL EROSION

(By Edwin H. Clark, II)

MANY studies document the damage that sediment, nutrients, and other soil erosion-related pollutants cause in streams, lakes, reservoirs, and estuaries, but few studies attempt to calculate the economic costs of these damages. All recent economic studies are limited in the damage they consider, their geographic scopes, or, most commonly, both. The last estimate of national economic costs associated with erosion-related damages was made in 1946 (*1*). The Conservation Foundation recently completed a study that attempts to fill this gap (3).

Any such attempt must grapple with numerous problems. Many damages are only weakly documented. If the damages are well documented, the linkage between them and soil erosion is probably not. Even if the damages and linkages are known, it is difficult to assign economic values to the damages. Thus, the estimates given here are indicative, not definitive.

Instream damages

Instream damages are those caused by sediment, nutrients, and other erosion-related contaminants in streams and lakes. These include damages to aquatic organisms, water-based recreation, water storage facilities, and navigation.

Biological impacts. Aquatic ecosystems can be seriously affected by sediment and other erosion-related contaminants in complex ways. Sediment can destroy spawning areas, food sources, and habitat as well as directly damage fish, crustaceans, and other aquatic wildlife. Algae growth stimulated by nutrients blocks sunlight. Pesticides and other contaminants carried off agricultural land can poison fish. The National Fisheries Survey identified agricultural runoff as chronically affecting fish in 30 percent of the nation's waters, and fish kill reports identify such runoff as a major cause of acute episodes (*21*).

Some biological impacts are reflected in damage estimates to recreational fishing and commercial fishing, but little is known about the overall magnitude of these impacts. Moreover, there is no commonly accepted method for estimating their cost. The absence of an overall estimate of damage costs to biological communities does not mean the impacts are small. They are not. If there were appropriate means for placing economic values on these damages, this category might well outweigh any of the others.

Recreational impacts. In 1979, 6.3 percent of people's disposable income was spent on recreation nationwide; leisure-time activities accounted for 1 of every 15 jobs in the country (*12*). Given the economic importance of recreation, it is not surprising that recreational impacts constitute the largest category of estimated instream damages.

Erosion-related pollutants reduce the value of freshwater fishing because they can reduce fish populations and cause game fish, such as trout, to be replaced by low-value species. Fishing is also less successful in turbid water because the fish have difficulty seeing lures. Similar problems affect marine recreational fishing. Many marine species reproduce in estuaries or rivers, and as the deterioration of the Chesapeake Bay has demonstrated, water quality problems in these locations can severly affect such species (*11*).

Siltation and weed growth physically interfere with boating and swimming, and these activities certainly are less pleasurable in polluted lakes and rivers. Boating is the recreational activity expected to benefit most from water quality improvement. Hunting is affected because aquatic vegetation and wildlife affected by pollution are food sources for many waterfowl.

Recreational damage estimates by The

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Conservation Foundation are based on Myrick Freeman's estimate of recreational benefits of water quality improvements (6). About 15 percent of these benefits result from controlling pollutants associated with cropland erosion (22). However, if the proportion of total benefits allocated to cropland were proportional to its contribution to total stream pollutant loadings, recreational damages would be two or three times as high.

Instream damages from soil erosion (in millions of 1980 dollars)

Type of Damage	*Range of Estimates*	*Single-Value Estimate*	*Cropland Share*
Biological impacts		no estimate	
Recreational damages			
Freshwater fishing	160- 870	450	180
Marine fishing	330- 1,800	450	180
Boating	390- 1,200	680	270
Swimming	70- 1,200	450	180
Waterfowl hunting	0- 200	50	20
Accidents - fatal	0- 100	-	-
nonfatal	0- 100	-	-
Subtotal (rounded)	950- 5,600	2,100	830
Damages to water-storage facilities			
Construction of sediment pools	220- 620	350	110
Dredging and excavating	20- 100	50	15
Replacement capacity	60- 450	250	80
Reduced evaporation*	– 10- – 200	– 100	– 30
Increased evapotranspiration	5- 100	50	15
Lake cleanup	17- 85	40	15
Subtotal (rounded)	310- 1,200	640	200
Costs of navigation impacts			
Delays to commercial shipping		no estimate	
Accidents	20- 100	40	13
Damage to engines		no estimate	
Dredging	400- 700	520	170
Dredge spoil disposal		no estimate	
Subtotal (rounded)	420- 800	560	180
Other instream damages			
Commercial fisheries	260- 410	300	120
Property values (aesthetics)		no estimate	
Preservation values	160- 2,400	530	210
Subtotal (rounded)	420- 2,800	830	330
Total instream damages (rounded)	2,100-10,000	4,100	1,500

*Reduced evaporation is a benefit of suspended sediment and, therefore, is included as a negative number.

Water storage damages. Damage to water storage facilities from sedimentation may become increasingly important because of the increasing cost and diminishing availability of new water storage capacity in the United States. Ten to 25 percent of new storage capacity, amounting to about 1 million acre-feet of capacity a year, is currently built solely to store sediment. A review of recent Corps of Engineers and Bureau of Reclamation projects indicates that this capacity typically costs $300 to $1,000 per acre-foot to construct.

Accumulated sediment is periodically dredged from some small reservoirs to keep them functioning. The Conservation Foundation estimated that these costs amount to $50 million per year.

Finally, an estimated 1.4 to 1.5 million acre-feet of reservoir and lake capacity is permanently filled each year with sediment. This capacity will eventually have to be replaced. The construction costs will probably be higher than the cost of current capacity. The Conservation Foundation estimates, however, provide for no increase in these costs and, assuming that the replacement capacity will not be built for 10 to 20 years after the loss occurs, discount the future costs 60 to 85 percent.

Sediment and nutrients can also affect the rate of evaporation and transpiration from water bodies. Evaporation is a particularly serious problem in arid regions because more than an acre-foot of capacity has to be constructed to provide an acre-foot of yield. New water costs $200 to $300 per acre-foot in many areas of the West. Here, suspended sediment in lakes and reservoirs provides a benefit: reducing evaporation by reflecting much of the solar energy that would have warmed the water. Sediment and nutrients, however, can increase the rate of evapotranspiration by stimulating the growth of water-consuming vegetation on lake borders. The benefits of reduced evaporation probably exceed the costs of increased evapotranspiration, although The Conservation Foundation estimates for these impacts may err by an order of magnitude in either direction.

The final cost related to water storage is lake cleanup. Lakes are the only type of water body thought to have suffered a net deterioration in water quality over the past decade (*4*). All levels of government are spending substantial amounts for weed control and other cleanup projects. The Conservation Foundation estimates are based on information from EPA and other sources on actual cleanup expenditures.

Navigation. The major cost of sediment to navigation appears to be maintenance dredging of harbors and waterways for which the Corps of Engineers spent $305 million in 1980. This is 50 to 60 percent of total maintenance dredging. The other navigation damages are more difficult to estimate. Although no estimate is made for the cost of delays, siltation in the Mississippi River below New Orleans after a flood in the spring of 1974 was estimated to have cost half a billion dollars in temporarily reduced foreign trade at New Orleans (*18*). The cost of accidents is represented mainly by U.S. Coast Guard statistics indicating that commercial groundings alone caused close to $60 million worth of damage in 1980 (*16*).

Other instream impacts. Other instream impacts associated with the products of soil erosion are damages to commercial fisheries and what economists call "preservation values." Erosion-related pollutants cause the same problems for commercial fisheries as for recreational fisheries, and the damage estimates for commercial fisheries are also based on the benefits of water quality improvement (*6*). Preservation values represent the value that people place on clean water even though they may never make direct use of the water body. Some studies have shown them to be higher than recreational and other user values, but the relatively lower estimates used by The Conservation Foundation were based on Freeman's work (*6*).

Off-stream effects

Off-stream damages are those caused by floods and those that occur before sediment gets into a waterway or after sediment-laden water is taken from a waterway for irrigation or other uses.

Flood damages. Sediment can increase flood damages in three ways. First, by causing the aggradation of streambeds it increases the frequency and depth of flooding. Second, suspended sediment increases the volume of the water-soil moisture in flood flows. Third, many flood damages are caused directly by the sediment rather than the water. The Conservation Foundation flood damage estimates are based on the assumptions that 2 percent of upstream damage is caused by channel aggradation and that 20 percent of urban damage and about 7 percent of rural damage are caused by sediment deposition. The increase in flood volumes was calculated by comparing maximum measured sediment concentration to aggregate flood damage in each of the 21 major river basins in the United States. The sum of these three types of damage accounts for about 12 percent of the nation's total expected flood damage.

Silt deposited by floods causes some long-term damage to agricultural land. Such deposits have long helped to maintain fertility in many agricultural areas, such as those along the lower Nile River. Floodplain soils in the United States, however, are more productive than average agricultural soils and are likely to be more fertile than the sediment left by floods. A North Carolina study estimated that 5 percent of floodplain cropland had suffered at least a 20 percent decline in productivity because of silt deposition (*14*). The Conservation Foundation estimate assumes that average productivity declines on floodplains across the country are about 10 percent.

Water conveyance. Sediment can cause various problems in water conveyance facilities. Some of it settles out in drainage ditches before the water reaches a waterway. An Illinois study indicated that the amount of sediment removed from drainage ditches each year is equivalent to 1.4 percent of the total erosion in the state. The removal cost in Illinois is approximately $3.25 per cubic yard (*15*). The Conservation Foundation estimates assume that these figures apply nationwide.

The other significant cost for convey-

Off-stream damages from soil erosion (in millions of 1980 dollars)

Type of Damage	*Range of Estimates*	*Single-Value Estimate*	*Cropland Share*
Sediment-related flood damages			
Increased flood heights from channel aggradation	0- 250	50	16
Increased flood volumes	10- 50	23	8
Direct sediment damages			
Urban	270- 540	350	110
Other	175- 350	250	82
Loss of life	14- 30	-	-
Reduced agricultural productivity	0- 170	100	33
Subtotal (rounded)	490-1,400	770	250
Water conveyance facilities			
Drainage ditches			
Flooding damages		no estimate	
Sediment removal	90- 185	120	50
Pumping water			
Increased pumping costs		less than one million dollars	
Equipment maintenance costs		no estimate	
Irrigation canals			
Sediment removal	30- 70	50	25
Weed control	15- 50	35	25
Subtotal (rounded)	140- 300	200	100
Water treatment for municipal and industrial use	50- 500	100	30
Other off-stream effects			
Municipal and industrial users	500-1,200	900	300
Steam electric power plants			
Maintenance of cooling systems	23- 69	45	15
Increased efficiency*	– 100- – 400	– 150	– 50
Irrigation			
Sealing soil surface		no estimate	
Salinity	4- 35	25	15
Value of nutrients*	– 15- – 37	– 25	– 8
Subtotal (rounded)	410- 870	800	280
Total off-stream damages (rounded)	1,100-3,100	1,900	660

*Reduced evaporation is a benefit of suspended sediment and, therefore, is included as a negative number.

ance facilities is for annual sediment removal and weed control in the 110,000 miles of irrigation canals in the United States. According to the Bureau of Reclamation, sediment removal accounts for 10 to 20 percent of the $300 million (*19*) annual cost of canal maintenance; weed control accounts for 5 to 15 percent.

Water treatment and other off-stream impacts. The costs of treating water for municipal and industrial uses increase because sedimentation basins must be built, chemical coagulants added, and filters cleaned more frequently. In extreme cases, activated charcoal filters and other devices must be added to remove pesticides and other dissolved contaminants.

Treating the water, however, does not remove all agriculture-related pollutants, such as dissolved salts. These salts cause an estimated $80 million in damages annually to municipal and industrial users in the lower Colorado River Basin alone (*20*). The Conservation Foundation estimate is based again on Freeman's work (*6*).

Although steam electric power plants do not require high-quality water for their cooling systems, nutrients and algae in the water can cut the efficiency of these facilities. A study sponsored by the Electric Power Research Institute indicated that controlling slime and algae growth costs $45 to $145 annually per installed megawatt (*9*). The Conservation Foundation estimate assumes an average cost of $100 per megawatt.

Generating efficiency may increase, however, if suspended sediment reflects solar energy from cooling ponds. The estimate assumes that the average temperature of cooling water may be as much as two degrees Fahrenheit lower because of turbidity.

Farmers using irrigation water containing sediment and other erosion-related contaminants may also experience increased costs. The fine silt may form a surface crust on the soil that reduces infiltration and seed germination. Dissolved salts can also lower crop yields. The Conservation Foundation estimate is based on the assumption that the average cost per irrigated acre is about 70 cents a year, or one-third of the average cost experienced in the Colorado River Basin (*3*). Partially offsetting these costs is the value of the nutrients in irrigation water. This value is estimated as equal to the farmer's costs for an equivalent amount of nitrogen and superphosphate fertilizers.

In summary

Erosion-related pollutants are estimated to have had a net damage cost of $3.2 billion to $13.0 billion in 1980 with the single-value estimate being $6.0 billion per year. Cropland's share is $2.2 billion. Many of these costs, for instance, salinity damage to household and industrial water-using equipment, are not directly related to erosion. They could continue even if erosion were stopped. The estimated damage directly related to sediment is $3.0 billion to $3.5 billion for all sources, and $1.0 billion to $1.2 billion for cropland erosion.

These estimates, however, reflect only orders of magnitude—that is, the actual costs (or benefits) are more likely to be in the range indicated than one-tenth as much or 10 times as much. However, some potentially significant impacts—both positive and negative—have not been estimated at all. Biological impacts are probably the most important of these.

Furthermore, the benefits of sediment control would be lower than the costs of damage given here. Probably the most important reason for this is that streambanks tend to erode faster for some period after sediment entering a stream is reduced. Because sediment concentration in the stream is not reduced as much as external sediment loading, many of the damages would continue. Eventually, perhaps many years later, the stream should return to equilibrium with a lower sediment load.

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Nonpoint sediment pollution has its source in soil erosion of one type or another. Sediment damages cropland; silts in reservoirs and ponds; plugs ditches and culverts; and accumulates in navigation channels, estuaries, and harbors. It clogs streams, making floods more frequent. It reduces the aesthetics of water bodies and increases the health hazards on public waters. And it destroys fish and wildlife habitat.

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American Registry of Certified Professionals in Agronomy, Crops and Soils
677 South Segoe Road, Madison, Wisconsin 53711

TARGETING

Question: The explanatory notes indicate that conservation benefits in targeted areas will increase in this fiscal year over last fiscal year. In fiscal year 1984, 5.8 million acres of cropland were benefitted, 40.5 million tons of erosion were prevented, and .5 million acre feet of water were conserved. In fiscal year 1985, you project that 8 million acres will be benefitted, 56 million tons of erosion will be prevented, and .7 acre feet of water will be conserved. All this improvement without the appropriation of increased funds for targeting. How was this accomplished?

Answer: Targeted area funds and personnel were capped at FY 1984 levels for FY 1985 by congressional action. The projected increase in targeted area accomplishments between FY 1984 and FY 1985 are primarily due to the synergistic effects of targeting action taken in FY 1983 and FY 1984. New targeted areas designated in FY 1984 are just beginning to show productive results in terms of accomplishments. It is important to note that the FY 1985 accomplishment estimate may be a little high in light of the present farm economic situation. Some farmers may have to delay scheduled conservation work because of limited funds.

TECHNICAL ASSISTANCE STAFF

Question: You propose to carry out the technical assistance program with 3,820 SCS staff years and 800 nonfederal contract staff years. Why do you not utilize SCS personnel for those activities?

Answer: The utilization of nonfederal contract staff years is proposed as a way of holding down the size of the Federal workforce and reducing related long-term costs such as Federal retirement benefits which would be incurred if SCS personnel would perform those activities. This alternative also provides more managerial flexibility in allocating resources to address high priority needs and to deal more effectively with changing resource conditions.

SNOW SURVEYS

Question: The budget summary states that snow surveys and water forecasting "provide a valuable service" because they assist in the planning for irrigation, flood control, power generation, municipal and industrial water supply and water quality, and other uses. However, the program is proposed for elimination. Why eliminate a "valuable service?"

Answer: The elimination of this program is proposed primarily for fiscal policy reasons in order to reduce Federal expenditures. We believe that a significant portion of the work carried out under this program including much of the data collection activity could be continued by those nonfederal organizations and agencies who benefit from these services.

Question: You say that snow survey activities could be absorbed by other Federal agencies or transferred to non-Federal control. What other Federal agencies could absorb the surveys?

Answer: Federal agencies with the technical expertise to conduct the data collection and water supply forecasting aspects of this program could include the Corps of Engineers, the U.S. Bureau of Reclamation, or the National Weather Service. These agencies are now cooperating in the program by providing funds and services in exchange for data and forecasts in areas where they have a specific agency interest. We do not know, at this time, whether or not any of these agencies would be able or willing to absorb all or part of the snow survey program activities currently provided by the Soil Conservation Service. The National Weather Service and the SCS are the only two Federal agencies permitted by law to publish water supply forecasts publicly.

Question: Why are those agencies not currently carrying out this program?

Answer: The responsibility for administering the Snow Survey program was originally assigned to the Department of Agriculture because its primary purpose is to relate available water supply to agricultural plans and operations. Priority is given to providing program data adapted to the needs of agricultural water users, particularly those served by Soil Conservation Districts and other water user groups. Other Federal agencies cooperate with SCS and provide funds and services to support data collection and forecasting in areas where they have an interest. This eliminates the need for several agencies to operate duplicative programs.

QUESTIONS SUBMITTED BY SENATOR MCCLURE

SOIL CONSERVATION SERVICE PROGRAMS

The Soil Conservation Service was established to provide technical programs to be carried out in cooperation with conservation districts and other sponsoring local organizations. SCS provides technology transfer through soil conservation districts to landusers, communities, watershed groups, Federal and State agencies, and other cooperators with erosion control and water management problems to bring about needed land treatments and physical adjustments in land use. The purpose is to improve and conserve soil and water resource quantity and quality, improve agriculture, and reduce damage caused by floods and sedimentation.

Sometime ago I heard of an old man down on a farm in Southern Idaho, who spoke with a newcomer who was passing by. The newcomer to make talk said, "How does the land lie around here?" The old man replied, "Well I don't know about the land a-lying; it's the real estate people that do the lying."

In a real sense the land does not lie; it bears a record of what men write on it. In a larger sense a nation writes its record on the land, and a civilization writes its record on the land. A record that is easy to read by those who understand the simple language of the land.

Lack of adequate funds for soil conservation purposes will leave a sorry record on the lands of this country. This years' budget proposal cuts deeply into funds used by thousands of farmers to save the soil that is the legacy of this country.

It is ironic during the year when the Soil Conservation Service is celebrating the 50th Anniversary of the accomplishments and successes in the field of soil and water conservation.

On the farm technical assistance to landowners in helping them to identify and apply soil and water conserving practices is available only from the SCS through the local Soil and Water Conservation Districts. These are truly grass-root organizations whose volunteer spirit enables these programs to work.

Only four one hundredths of one percent of the total budget is for the SCS. Nearly 50% of the budget goes to social spending programs which grow at 9 to 10% per year. These programs which should be cut by 85% not programs such as the SCS provide such as river basin surveys, resource appraisal and program development, inventory and monitoring, snow and water forecasting, small watershed protection, and flood prevention programs. I have hundreds of letters, I brought them with me for you to see. They are from all over the United States, from Idaho to Wisconsin, to Illinois, to Texas, to South Carolina, all supporting soil conservation. These are not just soil conservation districts. These are involved citizens, farmers and others who are concerned about losing soil conservation.

They are in support of funding for projects like Rock Creek Rural Clean Water Project, or the Brundage Watershed project which are to provide cleaner water for people and fisheries. If swimmable and fishable rivers and streams are our goal then we must provide the funding for the programs which will clean up the rivers and streams and keep them clean.

Question: How will the snow surveys which we rely so heavily upon be funded? The budget summary states that this program will be picked up by local government or by private organizations. Is this feasible? Has it been done before? What makes you think it will happen now?

Answer: The Snow Survey and Water Supply Forecasting program is relied on heavily by western water users to predict the potential supply of water that will be available for irrigation and other uses. Under the 1986 budget proposal, private and local government organizations and other Federal agencies would have to accept the responsibility for funding this program to the extent that the data collected is needed to support their respective operations and they desire to continue this effort.

The Snow Survey program has two major components. One is data collection and the other is data analysis and forecasting. Data is currently being collected from nearly 1,500 manually read snow courses and 490 automated remote data collection sites which make up the SNOTEL System. Presently, private and local organizations collect data on nearly half (700) of the existing manually read snow courses. Based on this experience there is a possibility that they would be able to accept the responsibility on the remaining manually read sites.

The SNOTEL System, which includes the 490 remote sites, the two base stations located at Ogden, Utah and Boise, Idaho, and a central computer facility at Portland, Oregon, would have to be entirely assumed and operated as a total system since each piece of the system totally depends on the other system components. No governmental entity has indicated an interest in taking over the system. There have been some private inquiries made but no proposals have resulted from these contacts to date.

The Water Supply Forecasting component has only been done on a limited basis by private organizations or local government entities and only for management purposes for the projects or areas that they have direct responsibility for. At present only two Federal agencies, the Soil Conservation Service and the National Weather Service, are permitted by law to issue water supply forecasts publicly. Although none of these other groups have indicated a willingness or interest in taking over the Snow Survey and Water Supply Forecasting program, we would make every effort to seek out other agencies or organizations to collect the data and provide these valuable forecasts to meet their needs.

CONSERVATION AND COMMODITY PROGRAMS

Question: The 1986 budget proposal is heavily influenced by fiscal policy constraints with the outlook that the economic incentives to devote marginal, erosion-prone ground to row crops will be lessened once the Administration's commodity programs legislation is enacted. What will happen if the Administration's legislation is not enacted and the economic incentives remain to use erosion-prone ground?

Answer: If the Administration's legislation is not enacted and commodity programs continue to inflate the real price of commodities, we would expect a continuation of current conditions in those areas where fragile, erosion-prone lands are used for program crops. Between 1977 and 1982, over 3.8 million acres of fragile land were converted from grass and trees to cropland. Annual erosion rates on cultivated fragile lands average as much as 15-20 tons per acre per year, five to seven times the soil loss tolerance rate. The productive capacity of these fragile lands decline quickly and the high erosion rates produce significant off-site damages from large volumes of sediment. The Administration's proposed farm legislation would reduce these economic incentives, which result in over-production of certain crops on marginal lands and contribute to erosion problems, by relying more on market forces to determine the amount of crops produced. This should reduce the pressure to cultivate marginal lands. In addition, the legislation includes direct conservation provisions that would deny commodity and credit programs to agricultural producers who produce a commodity on previously uncultivated fragile and highly erodible land on a field in which such fragile land is the predominant class, unless such soils are farmed according to a conservation system approved by a local conservation district. This is similar to "sodbuster" legislation which has been introduced in the Congress in several versions during the past few years and which has been supported by this Administration.

QUESTIONS SUBMITTED BY SENATOR KASTEN

ADMINISTRATION OF PROPOSED SODBUSTER POLICIES

Question: The Administration's farm bill proposal contains a sodbuster provision. This or any other sodbuster legislation would require people to administer it.

SCS has maintained in the past that it would be able to administer such legislation with existing levels of personnel.

In your opinion, could SCS still administer a sodbuster policy with about one-third its current staffing level?

If so, would it be forced either to cease its other functions or to give them a very low priority?

Answer: The budget was prepared in concert with the Administration's Farm Bill proposals, so that SCS could administer a sodbuster program at the level proposed for FY 1986.

Question: Could a 5,000-man SCS effectively administer a sodbuster law structured along the lines of S. 598, the Fragile Lands Conservation Act I introduced last month?

Answer: Yes, the resources needed to administer S. 598 appears to be similar to those for administering the Administration's sodbuster proposal.

CONSERVATION RESERVE

Question: I mentioned earlier that I intend to introduce legislation establishing a conservation reserve later this year.

Assume, for discussion purposes, a 30-million acre reserve, phased in over three years. What would SCS need in terms of personnel and other resources to administer a reserve of that size?

Could even a 20-million acre reserve be administered with a 5,000-man SCS?

Answer: No. The 1986 budget request was coordinated with the Administration's recommended Agricultural Adjustment Act of 1985. It does not propose a conservation reserve.

CHANGES IN ADMINISTRATION'S SODBUSTER PROVISIONS

Question: The Administrations' Farm Bill proposal contained a sodbuster provision, which would have denied farm program benefits for any crop grown on highly erodible land for one crop year. The definition of highly erodible land was based on erosion rates using the same language, in fact, as S. 598.

I understand that the Administration has changed its proposal considerably since it was first made public.

Would you describe all the changes made, and explain why they were made?

Answer: There was a technical correction made to the definition of highly erodible land. Three important words were inadvertently omitted in the final drafting of the Act. The definition should read, "highly erodible land is defined as land that has a potential for an excessive rate of erosion as determined by the Secretary." The intent of the Act is to discourage the conversion of fragile land that would suffer excessive rates of erosion when used as cropland. The current erosion rate under grass or tree cover may not be excessive. Therefore the focus of the legislation regarding use of this land is on potential erosion as well as tendencies to compact and develop salt or other similar problems.

A definition of highly erodible land based on erosion rates does not satisfactorily address the "potential" erosion to cover a shift in land use from grassland to cropland. Thus, the Act will allow the Secretary to determine which lands should be considered highly erodible and thus subject to the sodbuster provisions. Our intent initially is to issue proposed rules which will list "highly erodible" those soils that are in the USDA Land Capability Classification System classes IVe, VIe, VII, and VIII. At this time, we think this system best represents the combination of factors that determine the fragility of the soil resource. Use of the "e" subclass for classes IV and VI places an appropriate emphasis on the erosion hazard or limitation for use as cropland. Use of the major classes, i.e., IV, VI, VII, and VIII, takes into consideration various other factors that influence the land's potential for sustained crop use and the difficulties of designing conservation treatment or restoration systems. We are studying classification systems that are alternatives to this system. We are making good progress, but do not have sufficient scientific and technical agreement on an alternative system. For the time being, we will use the present system fully recognizing the high potential for an alternative.

IMPACT OF FARM BILL CONSERVATION PROPOSALS

Question: S. 598 would deny farm program benefits for a period of five years to any farmer who broke out highly erodible land.

By contrast, the latest Administration proposal would deny program benefits only to those crops grown on highly erodible land, and deny those benefits in perpetuity. In other words, the Administration proposes weaker sanctions applied over a much longer period of time.

What advantage is gained by what I regard as the punitive approach of denying benefits in perpetuity?

Is that advantage worth the unrest in the farm community that such a harsh-sounding approach will no doubt cause?

Answer: Title XV, Section 1502, of the Agricultural Adjustment Act of 1985, as proposed by the Administration, would deny program benefits to any person who during any crop year produces an agricultural commodity on highly erodible land on a field on which such highly erodible land is the predominant class. As such, the Administration's proposal would be as strong as that proposed by S. 598.

Long-term legislative authority to address the sodbuster problem is desirable from both a commodity and conservation standpoint. Several million acres of western rangeland have been "broken out" and put into mostly wheat production, primarily by venture capitalists. USDA commodity programs have encouraged planting decisions because price supports and production adjustments artificially inflate prices for program crops over world market levels. Thus, economic incentives, including favorable tax code treatment, are created to substitute program crops for others such as hay, pasture, grassland or forest that cause much less erosion. For two or three years these highly erodible, dry soils will produce a program crop. Thereafter, wind erosion and loss of soil moisture negate productivity. The conversion of these lands to crop production not only contributes to the surplus problem, but require Federal technical and financial assistance to install conservation systems to prevent severe erosion and even desertification of some areas in the west. Furthermore, large irrigation systems are being installed on these lands which accelerate serious groundwater supply problems.

We believe the farm community would support policies that would deny commodity program benefits to producers who take advantage of commodity policies and tax benefits to produce program crops on highly erodible lands for the primary purpose of favorable capital gains and benefits from the improvement and sale of these lands as cropland.

DEFINITION OF HIGHLY ERODIBLE LAND

Question: The latest Administration position is that the Land Capability Classification System should be used in defining the term "highly erodible land." In other words, the L.C.C. should be our guide to the kind of soil a sodbuster law ought to keep out of production and, conversely that a conservation reserve out to take out of production.

Yet a study done by soil survey experts in SCS itself argues that the L.C.C. is inappropriate for this purpose, because it was not designed to measure erosion, potential erosion, or the risk of damage to soils resulting from erosion, save in the most general way.

Why, then, does the Administration ignore the advice of its own experts and continue to advocate use of the L.C.C.?

What are the obstacles to adopting a more precise measure of potential erodibility, such as the formulae RKLS/T for sheet and rill erosion and CI/T for wind erosion? These were the recommendations of the SCS study.

Answer: An RCA Fragile Soils Work Group, with members from the Soil Conservation Service and the Economic Research Service, has thoroughly studied the definition and classification of erodible soils over the past several months. This work group has proposed the use of indices with factors RKLS/T and CI/T from erosion predictions equation as a basis for defining erodible soils. This proposal is now under review by the SCS staffs in the states. We must be assured that it can be used effectively by our field staffs in all parts of the country before we make a policy decision to use the indices.

Question: I regard it as vital to the success of sodbuster, conservation reserve and any soil conservation legislation that SCS identify as precisely as possible the land we ought to be protecting.

If, as even SCS's own experts appear to feel, the Land Capability Classification System is inadequate to meet this need, when can we expect something better to be developed?

I want to emphasize one point: it is imperative that SCS complete development of an appropriate and precise set of criteria to measure the potential for damage due to erosion in time for such criteria to be incorporated in the soil conservation legislation which I feel certain will become law in one form or another this year.

Failure to complete this development will, in my view, undermine the potential for success of any soil conservation legislation the Congress may pass as part of the 1985 Farm Bill.

Answer: We agree that accurate identification of highly erodible or fragile land is essential in deferring sodbusting and in certain legislative proposals being considered by the Congress. The definition selected should depend upon the objective of the legislation. If the objective applies only to erosion, then the definition of erodible soils using factors of the erosion equation appears to be the most precise. These issues are currently under review to determine how they can be best applied throughout the nation.

QUESTIONS SUBMITTED BY SENATOR BURDICK

LONG-TERM EFFECTIVENESS OF SCS PROGRAMS

Question: I am very concerned about the conservation of our soil and water resources. Wind erosion damaged more land of the Great Plains in the last two months of 1984 than during any comparable period since the mid-forties, according to the Soil Conservation Service. Mr. Myers, you said yourself that we are off to a bad start this season in my part of the country; that last year was the third worst wind erosion year in the 50 years we have been keeping records. You recently stated that reports from the Great Plains indicate wind damage on four million acres between November 1 of last year and the end of February this year. It appears that although the Soil Conservation Service has been in existence for 50 years, we have wind and water erosion as high as ever. However, in your statement, you indicate that the SCS programs have made a valuable and lasting contribution to the significant progress that has been made over the past 50 years in maintaining the condition of our soil and water resources. How do you explain this contradiction and what is the real story?

Answer: The real story is a complex one. Several factors contribute to this apparent ambivalence you point out.

The technology for detecting and reporting erosion has greatly improved the last 10 years. We feel that a much more accurate measure of erosion and erosion damage is being accomplished today. Changing ownership, uncertainty and fluctuations of production programs and economic forces are all hard on conservation. Agriculture is more intensive today. These and many other factors combine to continuously counter conservation efforts.

Wind erosion is as dynamic as the Great Plains climate. Many areas of the Plains had poor fall moisture conditions in 1984, so the wheat was planted late and made insufficient growth to provide adequate ground cover. However, moisture conditions changed after the first of the year and now North Dakota damage has dropped below last year's damage. The fall erosion has caused the Soil Conservation Service (SCS), the State Soil Conservation Committee, and the North Dakota Association of Conservation Districts to re-intensify efforts with landowners exhorting them to do a better job of wind erosion control. SCS and the Agricultural Stabilization and Conservation Service have given priority to farmers electing to install practices most effective in preventing wind erosion. The 1984-85 goal of 45,000 additional acres being treated has been exceeded.

A two month period of wind erosion is not a fair indicator of the long-term conservation effectiveness of SCS programs. The Great Plains Conservation Program (GPCP) and other SCS efforts have improved the long-term conservation farming ethic in North Dakota. The problems experienced last fall could have been extremely destructive if all farmers were still using moldboard plows, "black" fallow and block farming techniques. Today, many are practicing stubble mulching, wind stripcropping and field windbreak conservation farming techniques.

In 1980, North Dakota experienced a severe drought. A study was conducted to determine the impact of GPCP in helping farmers and ranchers through the drought. The principal findings were:

1. GPCP producers with grassland had more forage reserves, less required emergency hay and more adequate water supplies.

2. GPCP participants' cropland had better protection from wind erosion (92% of cropland for GPCP and 78% of cropland for non-GPCP).

3. There is significantly less cropland unsuitable for cultivation in GPCP contracts (2% of cropland in GPCP contracts and 6% of cropland in non-GPCP producers). Cropland unsuitable for cultivation in GPCP contracts is primarily small tracts surrounded by tillable land.

4. Cropland GPCP producers converted only slightly more to grass during 1978, 1979, and 1980 (4200 acres GPCP; 4000 acres non-GPCP).

FARMERS' PARTICIPATION IN CONSERVATION

Question: You also indicate in your testimony that greater reliance would be placed on the land users themselves to carry out actual on-the-ground application of conservation practices. However, an estimated 20 percent of the Nation's farmers face bankruptcy. As the economic squeeze tightens, short-term survival will take precedence over farmers' soil and water conservation efforts. How can you expect these struggling farmers to put more of their resources into conservation when they don't even have the resources to put in a crop?

Answer: We realize that those farmers who are experiencing serious financial difficulties are not in a position to invest in the more costly conservation practices. However, there are cost-effective practices such as conservation tillage which actually save the farmer money by reducing operating costs and, at the same time, provide good conservation benefits. In addition, many of our nation's farmers are not in financial difficulty and would be able to continue investing in soil and water conservation measures as they have done in the past as good stewards of the land.

QUESTIONS SUBMITTED BY SENATOR BYRD

Small Watershed Projects

The Soak Creek small watershed project was originally proposed to the Department by its West Virginia sponsors more than 17 years ago. This project was approved by Congress in 1982. Since that time, this Committee has provided funding and specific report language directing that this project and the long-pending Upper Mud small watershed project be completed as expeditiously as possible.

Question: Would you please provide a brief progress report on both projects, outlining your accomplishments over the past year and identifying specific milestones with dates through completion of construction, assuming that funds are made available.

Answer: Soak Creek Watershed will be constructed in two phases. Phase I-Contract is currently underway and is scheduled for completion in November of 1986. This contract will complete approximately half of the project. The remaining work will be done in Phase II. The engineering designs are complete for this work. The sponsors expect to complete obtaining land rights by June 1 of this year. We expect to open bids on the contract as early as August, and could begin construction as soon as September, provided that an acceptable bid is received. Construction should take about two years. Therefore, construction of Soak Creek Watershed could be completed by the end of fiscal year 1987.

Upper Mud River was approved by resolution by the Senate Committee on Environment and Public Works on September 29, 1982. The Resolution limits federal expenditures to $4,397,300 adjusted for inflation. The Current federal cost estimate for Upper Mud River is $6,223,000. This exceeds the limit on federal cost in the authorizing resolution. On March 14, 1985, I wrote to Chairman Stafford explaining why the cost will be exceeded and requested that the Environment and Publics Works Committee concur with our continuing funding of Upper Mud River to the current Federal cost estimate.

Final engineering designs are expected to be complete by July 15, 1985. The sponsors expect to have all necessary land rights by October 15, 1985. Work could not be initiated, however, without concurrence by the Public Works Committee to exceed the Federal cost limitation and OMB approval for a new construction start. Construction would take about five years for Upper Mud River.

Question: Do your present budgetary plans include funding and adequate personnel to complete the Soak Creek and Upper Mud projects on schedule? If not, what resources and legislative direction would be required to ensure that they are completed as intended by Congress?

Answer: We currently have adequate staff in West Virginia to complete these two projects. We have not currently made an allowance to West Virginia for either Soak Creek Phase II, or for Upper Mud River. In June of each year, a review is made of the status of watershed construction funds, and a high priority is assigned to projects where the last contract in the project is ready. If the Soak Creek sponsors are successful in obtaining the land rights for Phase II, the work will be given a high priority for funding from the pool of unobligated funds available at that time.

Since we are not requesting funding for watershed installation in fiscal year 1986 we will not be requesting funding or new start authority for Upper Mud River. If Congress directs the continuation of the program and directs that additional construction starts be made in fiscal year 1986, then Upper Mud River would recieve a high priority.

Question: How many other unconstructed small watershed projects in West Virginia are presently in the design stage or have completed designs?

Answer: There are 10 projects in the design stage or with completed designs in West Virginia at the present time.

Question: Where are these projects located, and what is the status of each?

Answer: Pocatalico site 28 is scheduled for contract yet this fiscal year. The Upper Buffalo recreation facilities are also scheduled for contract this year. The active watersheds in West Virginia, their status, and location follow:

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85 IN WEST VIRGINIA

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
WV	BRUSH CREEK	CONS	9,907,250	3,208,100	6,699,150	MERCER
WV	ELK TWOMILE CREEK	CONS	3,045,700	1,788,100	1,257,600	KANAWHA
WV	HARMON CREEK	CONS	22,974,072	20,448,951	2,525,121	BROOKE, HANCOCK, WASHINGTON(PA)
WV	MILL CREEK	CONS	15,195,300	8,850,800	6,344,500	JACKSON, ROANE
WV	PINEY CREEK-SOAK CREEK	CONS	4,045,100	3,516,600	528,500	RALEIGH
WV	POCATALICO RIVER BASIN	CONS	3,536,900	3,124,700	412,200	ROANE, KANAWA, PUTNAM, JACKSON
WV	POND RUN	CONS	3,156,800	2,869,600	287,200	WOOD
WV	UPPER BUFFALO CREEK	CONS	9,822,700	6,557,400	3,265,300	MARION
WV	UPPER MUD RIVER	APPR	5,980,900	2,864,700	3,116,200	LINCOLN, BOONE
WV	WHEELING CREEK	CONS	21,960,644	18,052,144	3,908,500	OHIO, MARSHALL, GREENE(PA), WASHINGTON(PA)

CONS=PROJECT UNDER CONSTRUCTION; APPR=PROJECT APPROVED BUT NO CONSTRUCTION DONE.

Question: Please provide for the record a list of all unconstructed small watershed projects now under design throughout the country, indicating their location by county and state, status, and projected Federal and local costs.

Answer: The national list of P.L. 83-566 projects which are active and that have not completed construction follows:

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
AL	BEAR CREEK-SOUTHEAST CHOCTAWHATCHEE RIVER	CONS	1,332,600	1,026,100	306,500	GENEVA, HOUSTON
AL	BEAR-CAINE CREEKS	APPR	1,381,400	910,700	470,700	DALLAS, PERRY
AL	BIG NANCE CREEK	CONS	5,534,900	3,945,200	1,589,700	LAWERENCE
AL	BUCK CREEK	CONS	2,229,900	1,700,100	529,800	COVINGTON
AL	CHOCCOLOCCO CREEK	CONS	13,974,300	7,078,300	6,896,000	CALHOUN, CLAY, CLEBURNE, TALLADEGA
AL	CROOKED CREEK	CONS	5,116,200	3,470,600	1,645,600	CLAY, RANDOLPH
AL	CYPRESS CREEK (TN)	CONS	11,697,000	9,467,000	2,230,000	LAUDERDALE, WAYNE (TN)
AL	DYNNE CREEK	CONS	2,496,500	1,284,000	1,212,500	CLEBURNE
AL	FACTORY CREEK	CONS	1,943,400	978,500	964,900	SUMTER
AL	KELLY-PRESTON MILL CREEK	APPR	1,678,200	1,197,100	481,100	DALE
AL	MOORES CREEK	APPR	370,200	339,100	31,100	CHAMBERS
AL	MUSH CREEK	CONS	3,733,300	2,845,600	887,700	DALLAS, LOWNDES
AL	POWELL CREEK	CONS	2,196,000	1,724,300	471,700	HALE, MARENGO
AL	TALLASEEHATCHIE CREEK	CONS	13,701,900	11,501,900	2,200,000	CLAY, TALLADEGA
AL	TOWN CREEK	CONS	6,922,200	5,422,200	1,500,000	COLBERT, FRANKLIN, LAWRENCE
AL	WILKERSON CREEK	CONS	3,441,700	2,692,500	749,200	COFFEE, DALE, GENEVA
AR	BIG CREEK (CRAIGHEAD)	CONS	4,768,093	3,368,093	1,400,000	CRAIGHEAD, GREENE
AR	BIG RUNNING WATER DITCH	CONS	7,234,292	4,252,592	2,981,700	LAWRENCE, RANDOLPH
AR	BIG SLOUGH	APPR	3,182,039	2,317,261	864,778	CLAY, GREENE
AR	BOIS D'ARC BAYOU	CONS	951,350	746,450	204,900	LITTLE RIVER
AR	CEDAR-PINEY CREEKS	CONS	3,963,867	2,821,683	1,142,184	YELL
AR	DES ARC BAYOU	CONS	9,411,455	8,307,692	1,103,763	WHITE
AR	FISH BAYOU	APPR	1,462,125	538,382	923,743	CRITTENDEN, ST. FRANCIS
AR	FLAT ROCK CREEK	CONS	6,719,237	4,880,303	1,838,934	CRAWFORD
AR	FOURCHE CREEK	CONS	18,253,052	14,290,335	3,962,717	RANDOLPH,RIPLEY(MO)
AR	LARKIN CREEK	APPR	7,303,367	4,200,610	3,102,757	LEE, ST. FRANCIS
AR	LEE-PHILLIPS	CONS	14,226,032	12,399,032	1,827,000	LEE, PHILLIPS

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
AR	NORTH FORK OF OZAN CREEK	CONS	2,350,171	1,811,691	538,480	HEMPSTEAD, HOWARD, PIKE
AR	OZAN CREEKS	APPR	8,838,526	7,318,876	1,519,650	HEMPSTEAD
AR	PLUM BAYOU(FLAT BAYOU FORTION)	APPR	2,352,612	1,424,988	927,624	JEFFERSON
AR	POINSETT	CONS	13,310,220	11,447,570	1,862,650	CRAIGHEAD, POINSETT
AR	POTEAU RIVER	CONS	8,487,149	6,392,799	2,094,350	SCOTT,LE FLORE(OK)
AR	SOUTH FORK	CONS	4,401,171	3,575,171	826,000	MONTGOMERY
AR	SOUTH FOURCHE	CONS	12,391,831	11,148,177	1,243,654	PERRY, YELL, SALINE, GARLAND
AR	UPPER OUACHITA RIVER	CONS	3,774,570	2,818,973	955,597	POLK
AR	UPPER PETIT JEAN	CONS	16,786,900	11,089,400	5,697,500	LOGAN, SCOTT, SEBASTIAN
AR	UPPER TRI-COUNTY	CONS	3,778,182	2,935,607	842,575	INDEPENDENCE, LAWRENCE, SHARP
AZ	APACHE JUNCTION-GILBERT	CONS	18,909,603	11,271,503	7,638,100	MARICOPA, PINAL
AZ	BUCKHORN-MESA	CONS	42,368,256	37,615,856	4,752,400	MARICOPA, PINAL
AZ	HARQUAHALA VALLEY	CONS	28,128,774	21,032,774	7,096,000	MARICOPA, YUMA
AZ	PERILLA MOUNTAIN	APPR	4,720,410	4,004,290	716,120	COCHISE
AZ	WILLIAMS-CHANDLER	CONS	38,929,755	29,731,355	9,198,400	MARICOPA, PINAL
CA	BEARDSLEY	CONS	13,041,140	12,300,000	741,140	VENTURA
CA	CARPINTERIA VALLEY	CONS	17,031,000	13,942,500	3,088,500	SANTA BARBARA
CA	CENTRAL SONOMA	CONS	16,005,800	11,430,400	4,575,400	SONOMA
CA	LOWER LLAGAS CREEK	CONS	16,257,000	10,677,000	5,580,000	SANTA CLARA
CA	MARSH-KELLOGG CREEK	CONS	8,558,500	5,123,500	3,435,000	ALAMEDA, CONTRA COSTA
CA	REVOLON	CONS	21,678,640	19,533,470	2,145,170	VENTURA
CA	TEHACHAPI	CONS	6,904,000	6,584,000	320,000	KERN
CA	UPPER LLAGAS CREEK	CONS	11,694,000	4,301,000	7,393,000	SANTA CLARA
CA	WOODLAKE-ANTELOPE VALLEY	APPR	973,000	627,000	346,000	TULARE
CO	HOME SUPPLY	CONS	3,950,000	1,950,000	2,000,000	LARIMER, WELD
CO	SEDGWICK-SAND DRAWS	CONS	10,976,500	9,476,500	1,500,000	SEDGWICK, CHEYENNE(NE), DEUEL(NE)
CO	WOLF CREEK-HIGHLANDS	APPR	1,217,900	761,000	456,900	POWERS

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
CT	AVERY BROOK	APPR	3,800,000	1,400,000	2,400,000	HARTFORD
CT	FARM BROOK	CONS	4,535,500	3,000,000	1,535,500	NEW HAVEN
CT	NORWALK RIVER	CONS	17,500,000	4,000,000	13,500,000	FAIRFIELD
CT	SOUTH BRANCH PARK RIVER	CONS	39,000,000	27,000,000	12,000,000	HARTFORD
DE	MARSHYHOPE CREEK	CONS	25,814,496	16,942,438	8,872,058	KENT, SUSSEX, CAROLINE(MD), DORCHESTER(MD)
DE	UPPER CHOPTANK RIVER	CONS	14,185,838	8,744,936	5,440,902	KENT, CAROLINE(MD), QUEEN ANNES(MD)
DE	UPPER NANTICOKE RIVER	CONS	13,730,441	6,676,755	7,053,686	KENT, SUSSEX
FL	EAST PITTMAN CREEK	APPR	1,358,000	1,118,300	239,700	HOLMES
FL	JUMPER CREEK	APPR	4,642,000	2,966,200	1,675,800	SUMTER
FL	LOXAHATCHEE SUB-DRAINAGE DISTRICT	APPR	698,200	218,800	479,400	PALM BEACH
FL	PALATLAKAHA RIVER	CONS	1,967,500	930,900	1,036,600	LAKE
FL	POND CREEK	CONS	1,929,100	92,224	1,836,876	SANTA ROSA
FL	SOUTH FLORIDA CONSERVANCY DISTRICT	CONS	5,858,800	2,591,550	3,267,250	PALM BEACH, HENDRY
GA	BEAVER CREEK	APPR	1,825,480	1,259,315	566,165	MACON
GA	BEAVERDAM CREEK	CONS	2,188,460	1,364,460	824,000	ELBERT, FRANKLIN, HART
GA	BIG CEDAR CREEK	CONS	9,583,216	7,425,064	2,158,152	POLK, FLOYD
GA	CEDAR CREEK	CONS	1,351,139	704,370	646,769	COWETA, FULTON
GA	EUHARLEE CREEK	CONS	3,584,184	1,659,700	1,924,484	BARTOW, FLOYD, HARALSON, PAULDING, POLK
GA	GROVE RIVER	CONS	3,374,500	2,754,061	620,439	BANKS, JACKSON
GA	HEAD OF LITTLE TENNESSEE RIVER	CONS	1,177,575	601,575	576,000	RABUN, MACON(NC)
GA	HEADWATERS OF THE CHATTOOGA RIVER	CONS	4,651,034	2,274,000	2,377,034	CHATTOOGA, WALKER
GA	HUDSON RIVER	CONS	5,562,202	3,817,852	1,744,350	BANKS, FRANKLIN, MADISON

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
GA	LITTLE CREEK	CONS	1,029,940	371,681	658,259	WHEELER, LAURENS
GA	LITTLE SANDY CREEK & TRAIL CREEK	CONS	3,420,200	2,348,443	1,071,757	CLARKE, JACKSON, MADISON
GA	LOWER LITTLE TALLAPOOSA RIVER	CONS	7,047,727	4,745,905	2,301,822	CARROLL, HARALSON, HEARD
GA	MIDDLE FORK BROAD RIVER	CONS	1,592,307	1,282,307	310,000	BANKS, FRANKLIN, HABERSHAM, STEPHENS
GA	MIDDLE OCONEE-WALNUT CREEK	CONS	7,474,135	5,488,491	1,985,644	HALL, JACKSON
GA	MIDDLE RIVER	APPR	2,438,298	1,383,675	1,054,623	FRANKLIN, STEPHENS
GA	MILL BRANCH	CONS	1,400,600	779,700	620,900	BACON
GA	NORTH OCONEE RIVER	CONS	1,315,100	848,100	467,000	HALL, JACKSON
GA	PINE LOG TRIBUTARY	CONS	4,037,840	2,927,790	1,110,050	BARTOW, CHEROKEE, GORDON
GA	SALLACOA CREEK AREA	CONS	4,466,652	3,569,409	897,243	BARTOW, CHEROKEE, PICKENS, GORDON
GA	SHOAL CREEK	APPR	1,369,112	1,067,952	301,160	MARION
GA	SOQUE	CONS	3,336,594	2,244,142	1,092,452	HABERSHAM
GA	SOUTH FORK OF BROAD RIVER	CONS	3,127,000	1,627,000	1,500,000	CLARKE, MADISON, OGLETHORPE
GA	TESNATEE CREEK	APPR	1,651,106	1,116,248	534,858	LUMPKIN, WHITE
GA	UPPER MULBERRY RIVER	CONS	2,644,854	1,683,600	961,254	BARROW, GWINNETT, HALL, JACKSON
HI	HONOLUA	CONS	7,240,000	5,382,300	1,857,700	MAUI
HI	KAHALUU	CONS	15,972,897	9,062,897	6,910,000	HONOLULU
HI	WAILUKA-ALENAIO	CONS	1,749,754	1,199,754	550,000	HAWAII
HI	WAIMANALO	CONS	12,798,000	6,108,000	6,690,000	HONOLULU
IA	BACON CREEK	CONS	3,392,120	2,945,710	446,410	PLYMOUTH, WOODBURY
IA	BADGER CREEK	CONS	5,050,000	4,150,000	900,000	DALLAS, MADISON, WARREN
IA	BLOCKTON	CONS	688,880	550,490	138,390	RINGGOLD, TAYLOR
IA	HACKLEBARNEY	APPR	1,774,940	1,352,340	422,600	MONTGOMERY, ADAMS
IA	INDIAN CREEK-VAN BUREN (MO)	APPR	4,915,820	2,700,890	2,214,930	VAN BUREN, CLARK(MO)

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
IA	LEDGEWOOD CREEK	CONS	520,710	456,650	64,060	FREMONT
IA	LITTLE RIVER	CONS	3,970,160	2,097,120	1,873,040	DECATUR
IA	MILL-PICAYUNE CREEK	CONS	3,926,160	3,049,915	876,245	CRAWFORD, HARRISON, SHELBY
IA	MORLEE	APPR	2,338,620	1,154,700	1,183,920	FRANKLIN
IA	MOSQUITO OF HARRISON	CONS	1,568,300	1,118,300	450,000	HARRISON, SHELBY
IA	NORTH PIGEON	CONS	718,110	543,410	174,700	POTTAWATTAMIE
IA	SIMON RUN	CONS	451,090	351,540	99,550	POTTAWATTAMIE
IA	THREE MILE CREEK	CONS	2,294,802	1,364,490	930,312	ADAIR, UNION
IA	TROUBLESOME CREEK	CONS	4,771,810	3,492,200	1,279,610	AUDUBON, CASS, GUTHRIE
IA	TURKEY CREEK	CONS	3,625,210	2,632,120	993,090	ADAIR, AUDUBON, CASS, GUTHRIE
IA	TWELVE MILE CREEK	CONS	3,690,790	1,575,823	2,114,967	ADAIR, RINGGOLD, UNION
IA	TWIN PONIES	APPR	610,050	587,050	23,000	POTTAWATTAMIE, MILLS
IA	WAUBONSIE CREEK	CONS	1,533,160	1,199,250	333,910	MILLS, FREMONT
ID	BRUNDAGE	CONS	2,826,700	1,623,700	1,203,000	ADAMS
ID	HAZELTON BUTTE	APPR	1,994,500	1,181,400	813,100	JEROME
ID	MONTPELIER CREEK	CONS	3,877,291	3,048,213	829,078	BEAR LAKE
ID	ROCK CREEK-BIG CANYON/EAST FORK	APPR	1,660,100	937,900	722,200	POWER
ID	ROCK CREEK-ROY EAST	APPR	1,600,000	873,500	726,500	POWER
ID	ROCK CREEK-SUBLETT	APPR	1,371,200	1,062,700	308,500	POWER
ID	ROCK CREEK-SUMMIT	APPR	846,700	671,400	175,300	POWER, ONEIDA
ID	THORN CREEK	APPR	1,852,330	1,245,375	606,955	LATAH, WHITMAN(WA)
ID	UPPER SAND CREEK	APPR	2,053,560	1,287,160	766,400	BONNEVILLE
IL	ASH-LOOP	APPR	1,082,867	851,000	231,867	ST. CLAIR
IL	COAL & CRANE CREEK	CONS	3,455,469	2,060,224	1,395,245	SCHUYLER
IL	KINKAID LAKE	APPR	1,256,600	843,060	413,540	JACKSON
IL	LITTLE CACHE CREEK	CONS	4,842,400	2,733,400	2,109,000	JOHNSON
IL	LITTLE CALUMET RIVER	CONS	68,645,500	31,649,200	36,996,300	COOK, WILL
IL	MENDOTA	CONS	2,234,100	1,138,000	1,096,100	BUREAU, LASALLE

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
IL	MILL CREEK	CONS	8,600,375	6,442,379	2,157,996	CLARK, EDGAR
IL	SHOAL CREEK	CONS	4,914,339	4,913,889	450	MONTGOMERY
IL	SPRING LAKE	APPR	616,400	417,100	199,300	MCDONOUGH
IL	UPPER SALT CREEK	CONS	76,604,955	40,430,555	36,174,400	COOK, DU PAGE, LAKE
IN	ANDERSON RIVER	CONS	11,134,517	4,662,249	6,472,268	PERRY, SPENCER, DUBOIS, CRAWFORD
IN	BACHELOR RUN	CONS	869,516	460,139	409,377	CARROLL, HOWARD
IN	BAILEY-COX-NEWTSON	CONS	1,460,000	1,070,000	390,000	STARKE
IN	BRUCE LAKE	APPR	413,007	271,611	141,396	FULTON, PULASKI
IN	JORDAN CREEK	CONS	1,774,190	1,162,520	611,670	WARREN
IN	LITTLE WALNUT CREEK	CONS	2,020,751	1,170,541	850,210	PARKE, PUTNAM
IN	MIDDLE FORK OF ANDERSON RIVER	CONS	13,751,075	7,096,279	6,654,796	CRAWFORD, PERRY
IN	MUDDY FORK OF SILVER CREEK	CONS	2,606,396	1,824,251	782,145	CLARK, FLOYD, WASHINGTON
IN	STUCKER FORK	CONS	6,987,135	2,999,064	3,988,071	CLARK, JEFFERSON, SCOTT, WASHINGTON
IN	TWIN-RUSH CREEK	CONS	3,353,058	1,694,823	1,658,235	WASHINGTON
IN	UPPER BIG BLUE RIVER	CONS	19,956,580	8,505,570	11,451,010	HENRY, RUSH
KS	BIG CREEK	CONS	2,619,500	2,146,500	473,000	COFFEY, GREENWOOD, LYON, WOODSON
KS	CROSS CREEK	CONS	6,220,000	4,770,000	1,450,000	JACKSON, POTTAWATOMIE, SHAWNEE
KS	DIAMOND CREEK	CONS	6,042,500	5,148,800	893,700	MORRIS, CHASE
KS	DRY CREEK	CONS	958,000	823,000	135,000	CLAY, CLOUD, REPUBLIC, WASHINGTON
KS	EAST SECTOR WHITEWATER RIVER	CONS	2,766,031	1,190,084	1,575,947	BUTLER, HARVEY, MARION
KS	ELK CREEK	APPR	19,919,900	12,659,800	7,260,100	ATCHISON, JACKSON, NEMAHA
KS	GRANT-SHANGHAI CREEKS	CONS	1,227,522	1,012,522	215,000	CHAUTAUQUA

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
KS	GRASSHOPPER-COAL CREEK	CONS	7,012,800	4,707,800	2,305,000	ATCHISON, BROWN, JEFFERSON
KS	LOWER ELK RIVER	CONS	8,863,200	7,560,400	1,302,800	ELK, CHAUTAUQUA, WILSON
KS	LOWER SALT CREEK	CONS	2,317,000	1,822,000	495,000	LINCOLN, MITCHELL, OTTAWA
KS	LYONS CREEK	CONS	9,404,253	5,434,453	3,969,800	DICKINSON, GEARY, MARION, MORRIS
KS	MIDDLE CREEK (LINN & MIAMI)	CONS	3,276,951	1,735,131	1,541,820	LINN, MIAMI
KS	MIDDLE CREEK (MORRIS)	APPR	3,468,000	2,698,000	770,000	MORRIS, MARION, CHASE
KS	MIDDLE WALNUT	CONS	3,529,448	2,629,448	900,000	BUTLER, COWLEY, SUMNER, SEDGWICK
KS	NORTH BLACK VERMILLION	CONS	6,020,000	3,420,000	2,600,000	MARSHALL, NEMAHA
KS	NORTH SECTOR UPPER WALNUT	CONS	6,350,000	5,100,000	1,250,000	BUTLER, CHASE
KS	PEYTON CREEK	CONS	1,166,100	1,005,100	161,000	CHASE
KS	SAND CREEK	CONS	4,024,700	1,178,900	2,845,800	HARVEY, MARION
KS	SOUTH SECTOR UPPER WALNUT	CONS	963,103	493,995	469,108	BUTLER
KS	SPILLMAN CREEK	CONS	3,723,172	2,422,172	1,301,000	LINCOLN, MITCHELL, OSBORNE, RUSSELL
KS	TURKEY CREEK	CONS	5,074,534	2,814,070	2,260,464	DICKINSON, MARION
KS	UPPER BLACK VERMILLION	CONS	5,850,000	3,350,000	2,500,000	MARSHALL, NEMAHA
KS	UPPER SALT CREEK	CONS	20,069,100	13,237,200	6,831,900	LINCOLN, MITCHELL
KS	UPPER WAKARUSA	CONS	7,208,100	5,008,100	2,200,000	OSAGE, SHAWNEE, DOUGLAS, ABAUNSEE
KS	WEST SECTOR WHITEWATER RIVER	CONS	7,000,000	3,500,000	3,500,000	SEDGWICK, HARVEY, BUTLER
KS	WET WALNUT NO. 1	CONS	7,141,640	3,268,108	3,873,532	BARTON, RUSH
KS	WET WALNUT NO. 2	CONS	15,523,940	9,694,322	5,829,618	NESS, PAWNEE, RUSH
KS	WET WALNUT NO. 3	CONS	11,765,872	7,312,725	4,453,147	NESS
KS	WET WALNUT NO. 5	CONS	4,927,633	2,378,548	2,549,085	LANE, NESS, SCOTT
KY	BANKLICK CREEK	CONS	9,205,000	8,105,000	1,100,000	BOONE, KENTON
KY	BIG MUDDY CREEK	CONS	4,551,200	3,631,200	920,000	BUTLER, LOGAN

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
KY	CANEY CREEK	CONS	11,572,420	9,566,670	2,005,750	BUTLER, GRAYSON, OHIO
KY	CHAMBERLAIN BRANCH	CONS	219,400	195,300	24,100	ESTILL
KY	DONALDSON CREEK	CONS	5,339,507	3,369,617	1,969,890	CALDWELL, CRITTENDEN
KY	EAST FORK OF POND RIVER	CONS	15,000,000	13,054,417	1,945,583	CHRISTIAN, MUHLENBERG, TODD
KY	FOX CREEK	CONS	3,282,285	2,619,959	662,326	FLEMING
KY	MUD RIVER	CONS	8,355,881	4,179,535	4,176,346	BUTLER, LOGAN, MUHLENBERG, TODD
KY	NORTH FORK NOLIN RIVER	CONS	2,142,011	1,048,680	1,093,331	LARUE
KY	OBION CREEK	CONS	6,272,675	2,212,675	4,060,000	CARLISLE, FULTON, GRAVES, HICKMAN
KY	RED LICK CREEK	CONS	3,220,300	2,460,300	760,000	ESTILL, JACKSON, MADISON
KY	SALT LICK CREEK	CONS	1,435,462	1,315,462	120,000	BATH, MENIFEE
KY	SHORT CREEK	CONS	1,630,957	1,230,957	400,000	GRAYSON
KY	STEWART CREEK	CONS	1,996,150	1,837,850	158,300	HOPKINS
KY	UPPER TRADEWATER RIVER	CONS	3,009,800	1,656,400	1,353,400	CHRISTIAN, HOPKINS
KY	WEST FORK OF MAYFIELD CREEK	CONS	7,662,041	6,370,508	1,291,533	CARLISLE, GRAVES
KY	WEST FORK OF POND RIVER	CONS	3,601,155	2,639,130	962,025	CHRISTIAN, HOPKINS
LA	AVOYELLES-ST. LANDRY	APPR	10,478,864	2,969,785	7,509,079	AVOYELLES, RAPIDES, ST. LANDRY
LA	BAYOU BONNE IDEE	CONS	7,182,150	3,264,205	3,917,945	MOREHOUSE
LA	BAYOU GROSSE TETE	CONS	7,351,700	2,075,580	5,276,120	POINTE COUPEE
LA	BAYOU PLAQUEMINE BRULE	CONS	8,406,800	3,492,880	4,913,920	ACADIA, ST. LANDRY
LA	BELL CITY	CONS	9,258,200	6,448,500	2,809,700	CALCASIEU, CAMERON, JEFFERSON DAVIS
LA	CAMERON-CREOLE	CONS	2,181,662	1,579,957	601,705	CAMERON
LA	CENTRAL MADISON	CONS	2,238,955	1,590,235	648,720	MADISON
LA	CHATLIN LAKE CANAL	APPR	7,957,185	1,629,920	6,327,265	RAPIDES, AVOYELLES
LA	CHOCTAW BAYOU	CONS	5,609,500	1,542,370	4,067,130	WEST BATON ROUGE, POINTE COUPEE, IBERVILLE

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
LA	COCODRIE-GRAND LOUIS	APPR	2,066,190	967,439	1,098,751	EVANGELINE, ST. LANDRY
LA	CYPRESS-BLACK BAYOU	CONS	10,430,100	4,070,880	6,359,220	BOSSIER
LA	EAST CARROLL	CONS	19,805,200	10,647,175	9,158,025	EAST CARROLL, MADISON
LA	EAST FRANKLIN	CONS	9,224,300	3,155,430	6,068,870	FRANKLIN, RICHLAND, CATAHOULA
LA	JOHNSON BAYOU	CONS	6,795,900	2,447,055	4,348,845	POINTE COUPEE
LA	LAKE VERRET	CONS	7,332,246	3,082,004	4,250,242	ASCENSION, ASSUMPTION, IBERVILLE
LA	WALNUT-ROUNDAWAY	CONS	8,528,260	3,066,987	5,461,273	MADISON, EAST CARROLL
LA	WEST CARROLL	CONS	21,427,100	15,232,300	6,194,800	RICHLAND, WEST CARROLL
MA	BAITING BROOK	CONS	2,097,500	1,351,000	746,500	MIDDLESEX
MA	CLAM RIVER	CONS	6,027,588	4,927,588	1,100,000	BERKSHIRE
MA	DIAMOND BROOK	CONS	1,829,651	1,579,651	250,000	NORFOLK
MA	SU-AS-CO	CONS	14,591,611	8,591,611	6,000,000	MIDDLESEX, WORCESTER
MA	UPPER QUABOAG RIVER	CONS	6,231,384	3,731,384	2,500,000	HAMPDEN, HAMPSHIRE, WORCESTER
MA	WASHINGTON MOUNTAIN BROOK	CONS	5,114,400	2,714,400	2,400,000	BERKSHIRE
MD	GOLDSBORO	CONS	1,613,469	1,008,609	604,860	CAROLINE
MD	SENECA CREEK	APPR	427,100	321,400	105,700	MONTGOMERY
MD	ST. MARY'S RIVER	CONS	8,885,891	4,268,785	4,617,106	ST MARYS
MD	UPPER CHESTER RIVER	CONS	5,085,100	2,432,600	2,652,500	KENT, QUEEN ANNE'S, KENT(DE), NEW CASTLE(DE)
ME	DICKEY BROOK	APPR	1,016,500	645,450	371,050	AROOSTOOK
ME	LOVEJOY POND	APPR	1,025,986	641,786	384,200	KENNEBEC
ME	PARKHURST SIDING-CARIBOU	APPR	1,809,100	1,367,100	442,000	AROOSTOOK
ME	PATTEE BROOK	APPR	810,600	539,000	271,600	AROOSTOOK
ME	PRESQUE ISLE STREAM	CONS	5,257,776	3,577,776	1,680,000	AROOSTOOK
ME	SEBASTICOOK LAKE	APPR	1,301,170	988,380	312,790	PENOBSCOT, SOMERSET
ME	WEBBER POND	APPR	1,006,300	255,950	750,350	KENNEBEC
MI	BEAN CREEK	APPR	1,462,800	1,046,200	416,600	HILLSDALE, LENAWEE
MI	EAST BRANCH STURGEON RIVER	CONS	1,491,200	658,670	832,530	DICKINSON

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
MI	EAST UPPER MAPLE RIVER	CONS	15,526,400	8,526,400	7,000,000	GRATIOT, SHIAWASSEE, CLINTON
MI	INDIAN CREEK	CONS	414,600	184,200	230,400	LAPEER, SANILAC, TUSCOLA
MI	MIDDLE BRANCH OF CASS RIVER	CONS	942,682	217,842	724,840	SANILAC
MI	ROGUE RIVER	CONS	2,831,565	1,827,175	1,004,390	OTTAWA, NEWAYGO, KENT, MONTCALM, MUSKEGON
MI	WEST UPPER MAPLE RIVER	CONS	5,100,000	3,800,000	1,300,000	GRATIOT, CLINTON
MN	BURNHAM CREEK	APPR	3,020,000	2,316,000	704,000	POLK
MN	CANBY CREEK	CONS	4,880,820	3,718,600	1,162,220	LINCOLN, YELLOW MEDICINE
MN	SOUTH ZUMBRO	APPR	18,156,000	11,482,000	6,674,000	DODGE, OLMSTEAD
MO	DURGENS CREEK	CONS	2,051,500	1,138,500	913,000	LEWIS
MO	EAST FORK OF BIG CREEK	CONS	4,472,800	3,732,500	740,300	HARRISON, DECATUR(IA)
MO	GRINDSTONE-LOST-MUDDY CREEK	CONS	16,144,517	8,493,459	7,651,058	CLINTON, DAVIESS, DEKALB, GENTRY
MO	LITTLE WYACONDA-SUGAR CREEK	APPR	3,171,230	2,333,990	837,240	CLARK, SCOTLAND, LEWIS
MO	LOST CREEK	CONS	2,025,500	1,472,825	552,675	NEWTON
MO	LOWER LITTLE BLACK (ARK)	CONS	25,666,142	18,894,998	6,771,144	BUTLER, RIPLEY, CLAY (AR)
MO	MOZINGO CREEK	CONS	12,429,475	3,879,741	8,549,734	NODAWAY
MO	SOUTH FORK OF BLACKWATER RIVER	CONS	5,275,804	3,013,662	2,262,142	JOHNSON
MO	TROUBLESOME CREEK	APPR	6,147,200	5,386,300	760,900	LEWIS, MARION, KNOX
MO	UPPER LITTLE BLACK	CONS	11,284,085	10,268,792	1,015,293	BUTLER, RIPLEY, CARTER
MO	WILLOW CREEK	CONS	739,939	511,609	228,330	RAY
MS	BAHALA CREEK	CONS	2,242,538	1,402,213	840,325	LINCOLN, COPIAH, LAWRENCE
MS	BIG CREEK	CONS	3,621,925	2,103,321	1,518,604	JASPER, JONES, SMITH
MS	BROWNS CREEKS	APPR	3,619,065	2,424,129	1,194,936	PRENTISS, ITAWAMBA, TISHOMINGO
MS	CHUNKY RIVER	CONS	8,098,670	4,888,796	3,209,874	NEWTON, NESHOBA
MS	CHUQUATONCHEE CREEK	CONS	3,756,318	2,360,900	1,395,418	CHICKASAW, CLAY, MONROE, PONTOTOC

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
MS	COPIAH CREEK	CONS	6,165,131	3,339,196	2,825,935	COPIAH
MS	DEER CREEK	CONS	3,157,100	1,734,000	1,423,100	BOLIVAR, WASHINGTON
MS	DRY CREEK	CONS	979,854	582,133	397,721	COVINGTON
MS	HOLLIDAY CREEK	CONS	2,364,722	1,483,659	881,063	MARION, JEFFERSON DAVIS
MS	LINE CREEK	CONS	4,478,389	3,585,939	892,450	CLAY, CHICKASAW, WEBSTER
MS	LONG CREEK	CONS	1,181,041	498,935	682,106	ATTALA
MS	MANTACHIE, BOGUE FALA AND BOGUE EUCUBA C	APPR	5,045,550	3,399,170	1,646,380	ITAWAMBA, LEE, MONROE
MS	MUDDY CREEK	CONS	8,495,093	6,829,093	1,666,000	TIPPAH, HARDEMAN(TN)
MS	OKATOMA CREEK	APPR	12,283,000	8,943,000	3,340,000	SIMPSON, SMITH, COVINGTON, JONES, FORREST
MS	RICHLAND CREEK	CONS	3,645,494	2,531,131	1,114,363	RANKIN
MS	SECOND CREEK	CONS	2,447,185	1,697,185	750,000	ADAMS
MS	SHUQUALAK CREEK	CONS	1,503,900	1,166,900	337,000	NOXUBEE, KEMPER
MS	SOWASHEE CREEK	CONS	8,289,038	7,102,630	1,186,408	LAUDERDALE
MS	STANDING PINE CREEK	CONS	1,583,953	1,121,957	461,996	LEAKE, NESHOBA
MS	TALLAHAGA CREEK	CONS	3,195,950	2,387,440	808,510	WINSTON, CHOCTAW, NESHOBA
MS	TOWN CREEK	CONS	8,831,513	4,869,843	3,961,670	LEE, PONTOTOC, PRENTISS, UNION
MS	TUSCUMBIA RIVER	CONS	26,766,200	13,120,200	13,646,000	ALCORN, PRENTISS, MCNAIRY(TN)
MS	UPPER LEAF RIVER	CONS	4,051,574	2,520,845	1,530,729	SMITH, SCOTT
MS	WHITESAND-GREENS CREEKS	APPR	6,497,290	4,310,939	2,186,351	JEFFERSON DAVIS, LAWRENCE
MT	BIG SPRING CREEK	CONS	7,482,100	6,737,500	744,600	FERGUS
MT	LOWER BIRCH CREEK	CONS	6,999,200	4,395,000	2,604,200	PONDERA
MT	MUDDY CREEK(NORTHEAST UNIT)	APPR	1,509,000	874,100	634,900	TETON
MT	SAGE CREEK	APPR	1,547,950	1,137,700	410,250	LIBERTY
MT	WOLF CREEK	CONS	380,400	273,000	107,400	FERGUS, JUDITH BASIN
NC	BRYANT SWAMP	CONS	626,000	478,900	147,100	BLADEN
NC	BUFFALO-MUDDY FORK CREEK	APPR	2,065,843	1,384,115	681,728	CLEVELAND, GASTON, LINCOLN

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
NC	CHICOD CREEK	CONS	3,592,274	1,962,274	1,630,000	PITT, BEAUFORT
NC	COUNTRY LINE CREEK	CONS	7,624,800	3,598,720	4,026,080	CASWELL, ROCKINGHAM
NC	CRABTREE CREEK	CONS	21,508,310	10,016,236	11,492,074	DURHAM, WAKE
NC	CRESWELL	CONS	200,000	190,000	10,000	WASHINGTON
NC	DEEP CREEK (YADKIN)	CONS	2,643,803	1,485,338	1,158,465	YADKIN
NC	DUTCHMAN CREEK	CONS	8,770,540	6,693,510	2,077,030	DAVIE, IREDELL, YADKIN
NC	JACOB SWAMP	CONS	4,405,839	2,860,286	1,545,553	ROBESON
NC	LIMESTONE CREEK	CONS	2,099,410	1,274,790	824,620	DUPLIN
NC	LITTLE CONTENTNEA CREEK	APPR	4,436,347	2,340,398	2,095,949	PITT, GREENE, WILSON, EDGECOMBE
NC	LITTLE YADKIN RIVER	CONS	1,129,113	625,672	503,441	STOKES, FORSYTH, SURRY
NC	MOSS NECK	CONS	1,122,000	497,100	624,900	ROBESON
NC	MUDDY CREEK (DUPLIN)	CONS	1,783,295	1,092,410	690,885	DUPLIN
NC	SECOND BROAD RIVER	CONS	10,000,000	3,433,000	6,567,000	MCDOWELL, RUTHERFORD, CLEVELAND
NC	STEWARTS CREEK-LOVILLS CREEK	CONS	2,395,849	1,519,200	876,649	SURRY, CARROLL(VA)
NC	SWAN QUARTER	APPR	3,151,960	2,984,399	167,561	HYDE
NC	SWIFT CREEK	CONS	6,709,200	3,554,330	3,154,870	PITT, BEAUFORT, CRAVEN
NC	TOWN FORK CREEK	CONS	2,350,210	1,637,559	712,651	STOKES, FORSYTH
ND	LOWER FOREST RIVER	CONS	2,926,887	1,665,172	1,261,715	WALSH
ND	MIDDLE BRANCH-PARK RIVER	CONS	5,150,000	4,400,000	750,000	CAVALIER, PEMBINA, WALSH
ND	MIDDLE-SOUTH BRANCH FOREST RIVER	CONS	3,057,149	2,005,634	1,051,515	GRAND FORKS, NELSON, WALSH
ND	SQUARE BUTTE CREEK	CONS	4,074,672	2,248,501	1,826,171	OLIVER, MORTON
ND	UPPER TURTLE RIVER	CONS	3,693,714	2,924,961	768,753	GRAND FORKS, NELSON
NE	AOWA CREEK	CONS	3,429,000	1,995,300	1,433,700	DIXON
NE	BALLS BRANCH	APPR	1,396,200	812,900	583,300	THAYER, JEFFERSON
NE	BELLWOOD	CONS	2,075,100	1,437,400	637,700	BUTLER
NE	BIG INDIAN CREEK	CONS	4,470,000	2,669,500	1,800,500	GAGE, JEFFERSON

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
NE	BLACKWOOD CREEK	CONS	4,267,700	1,367,500	2,900,200	LINCOLN, HITCHCOCK, HAYES, RED WILLOW
NE	BONE CREEK	APPR	1,456,900	1,124,200	332,700	BUTLER
NE	CLEAR CREEK	CONS	963,200	409,200	554,000	SAUNDERS
NE	COTTONWOOD CREEK	CONS	1,679,620	1,028,600	651,020	SAUNDERS
NE	GERING VALLEY	CONS	12,555,000	10,520,000	2,035,000	SCOTTS BLUFF
NE	LONG BRANCH	CONS	2,902,020	2,047,970	854,050	RICHARDSON, NEMAHA, PAWNEE, JOHNSON
NE	LOWER MEDICINE CREEK	CONS	1,435,000	605,000	830,000	FRONTIER, LINCOLN
NE	MIDDLE FORK MAPLE CREEK	APPR	2,608,300	1,268,275	1,340,025	COLFAX, STANTON
NE	PAPILLION CREEK	CONS	3,859,500	1,515,400	2,344,100	DOUGLAS, SARPY, WASHINGTON
NE	SOUTH BRANCH LITTLE NEMAHA	CONS	8,519,500	6,357,900	2,161,600	LANCASTER, OTOE, JOHNSON
NE	SOUTH FORK	CONS	1,076,240	649,850	426,390	PAWNEE, RICHARDSON
NE	SPRING CREEK (JOHNSON)	CONS	1,285,000	829,400	455,600	JOHNSON, NEMAHA, OTOE
NE	STEVENS-CALLAHAN(CAMP CREEK)	APPR	1,887,300	1,318,200	569,100	CASS, LANCASTER
NE	SWAN CREEK	CONS	8,739,000	5,924,300	2,814,700	JEFFERSON, SALINE
NE	TEKAMAH-MUD CREEK	CONS	2,210,600	2,445,558	234,958	BURT
NE	UPPER BIG NEMAHA	CONS	6,376,920	3,415,850	2,961,070	GAGE, JOHNSON, LANCASTER, OTOE
NE	UPPER MEDICINE CREEK	CONS	1,866,300	816,100	1,050,200	FRONTIER, HAYES, LINCOLN
NE	WILSON CREEK	CONS	4,222,200	2,536,750	1,685,450	CASS, OTOE
NE	WINNEBAGO-BEAN CREEK	CONS	751,025	476,500	274,525	RICHARDSON
NE	WOLF-WILDCAT CREEK	CONS	3,718,100	2,601,800	1,116,300	GAGE, PAWNEE
NH	DEAD RIVER	CONS	2,808,000	2,433,000	375,000	COOS
NH	SUGAR RIVER	CONS	12,536,493	8,769,000	3,767,493	GRAFTON, MERRIMACK, SULLIVAN
NJ	ASSUNPINK CREEK	CONS	45,008,153	30,641,153	14,367,000	MERCER, MONMOUTH
NJ	CLOVE BROOK	APPR	1,380,000	1,104,000	276,000	SUSSEX
NJ	FURNACE BROOK	CONS	1,806,255	1,365,255	441,000	WARREN
NJ	UPPER SALEM RIVER	APPR	1,265,000	978,000	287,000	SALEM

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
NM	CORRALES	CONS	11,691,450	10,287,800	1,403,650	SANDOVAL, BERNALILLO
NM	COTTONWOOD-WALNUT CREEK	CONS	24,630,000	8,801,400	15,828,600	CHAVES, EDDY
NM	CROW & BROAD CANYONS & PLACITAS ARROYO	CONS	5,325,459	5,218,950	106,509	DONA ANA, SIERRA
NM	EAGLE-TUMBLEWEED DRAW	APPR	7,510,700	6,876,000	634,700	CHAVES, EDDY
NM	ESPANOLA-RIO CHAMA	APPR	10,946,500	10,248,100	698,400	RIO ARRIBA, SANDOVAL
NM	SEBASTIAN MARTIN-BLACK MESA	CONS	9,342,957	8,659,800	683,157	RIO ARRIBA
NM	SIBLEY, GREEN, JARALOSA AND CANDLER ARRO	CONS	5,376,000	5,237,000	139,000	DONA ANA, SIERRA
NM	T OR C WILLIAMSBURG ARROYOS	CONS	11,000,000	10,750	10,989,250	SIERRA
NM	ZUNI PUEBLO	APPR	4,827,000	3,644,500	1,182,500	MCKINLEY
NY	BATAVIA KILL	CONS	4,767,000	3,988,100	778,900	GREENE
NY	BLIND BROOK (CT)	APPR	3,132,560	2,637,980	494,580	WESTCHESTER, FAIRFIELD (CT)
NY	BRANDYWINE CREEK	APPR	80,000	700,720	620,720	BROOME
NY	CONEWANGO CREEK	CONS	12,474,983	10,419,815	2,055,168	CATTARAUGUS, CHAUTAUQUA
NY	CROMLINE CREEK	CONS	647,750	278,100	369,650	ORANGE
NY	DEPOSIT CREEK	CONS	2,102,400	1,469,210	633,190	BROOME, DELAWARE, CHENANAGO
NY	FLINT CREEK	CONS	2,346,700	1,699,400	647,300	ONTARIO, STEUBEN, YATES
NY	HIGINBOTHAM BROOK	CONS	284,450	244,400	40,050	MADISON
NY	ISCHUA CREEK	CONS	2,402,580	1,647,080	755,500	CATTARAUGUS
NY	MILL BROOK	CONS	1,688,500	1,290,700	397,800	CHENANGO
NY	NANTICOKE CREEK	CONS	5,317,390	4,739,570	577,820	BROOME, TIOGA
NY	NEWTOWN-HOFFMAN CREEKS	CONS	12,318,400	9,856,300	2,462,100	SCHUYLER, CHEMUNG
NY	OAK ORCHARD CREEK	CONS	5,302,400	3,158,900	2,143,500	GENESEE, ORLEANS
OH	LITTLE AUGLAIZE RIVER	CONS	12,012,133	9,806,281	2,205,852	MERCER, PUTNAM, PAULDING, VAN WERT
OH	MIDDLE BRANCH OF THE LITTLE AUGLAIZE RIV	CONS	20,921,222	19,013,755	1,907,467	PAULDING, VAN WERT
OH	NORTH HOCKING RIVER	APPR	1,571,804	1,335,330	236,474	FAIR FIELD

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
OH	PRAIRIE-HOAGLIN BR. OF OF LITTLE AUGLAIZE RIV	APPR	8,074,534	5,528,821	2,545,713	PAULDING, VAN WERT
OH	RATTLESNAKE CREEK	CONS	6,476,409	3,268,920	3,207,489	FAYETTE, HIGHLAND, CLINTON, GREENE, MADISON
OH	RUSH CREEK	CONS	23,299,800	20,361,786	2,938,014	FAIRFIELD, HOCKING, PERRY
OH	SHORT CREEK	CONS	7,361,320	4,464,510	2,896,810	HARRISON, JEFFERSON
OH	SOUTH FORK LICKING RIVER	APPR	13,390,300	7,148,400	6,241,900	LICKING, PERRY, FAIRFIELD
OK	BRUSHY-PEACEABLE CREEK	CONS	15,016,848	11,100,548	3,916,300	LATIMER, PITTSBURG
OK	CANE CREEK	CONS	8,543,421	5,643,421	2,900,000	MUSKOGEE, OKMULGEE
OK	CANEY CREEK	CONS	2,700,447	1,843,347	857,100	ATOKA, BRYAN
OK	CARNEY CREEK	APPR	281,100	223,800	57,300	CHOCTAW
OK	COTTON-COON-MISSION CREEK	CONS	14,661,263	10,768,263	3,893,000	WASHINGTON, OSAGE, NOWATA, CHAUTAUQUA(KS)
OK	COW CREEK	CONS	15,436,801	12,028,801	3,408,000	JEFFERSON, STEPHENS
OK	GARRISON CREEK	APPR	6,508,766	5,618,666	890,100	SEQUOYAH
OK	HOYLE CREEK	CONS	1,072,760	789,500	283,260	MAJOR
OK	JACK CREEK	CONS	5,302,080	3,686,080	1,616,000	TILLMAN, COMANCHE
OK	KICKAPOO NATIONS	CONS	17,629,191	11,955,777	5,673,414	LINCOLN, OKLAHOMA
OK	LEADER-MIDDLE CLEAR BOGGY CREEK	CONS	5,878,289	3,958,289	1,920,000	COAL, PONTOTOC
OK	LOST-DUCK CREEKS	CONS	9,386,917	7,679,817	1,707,100	KAY
OK	LOWER BAYOU	CONS	12,175,012	9,651,412	2,523,600	CARTER, LOVE
OK	LOWER BLACK BEAR CREEK	CONS	9,317,751	6,577,651	2,740,100	PAWNEE, PAYNE, NOBLE
OK	LOWER CLEAR BOGGY CREEK	CONS	14,305,072	9,809,372	4,495,700	ATOKA, BRYAN, COAL, JOHNSTON
OK	LOWER RED ROCK CREEK	CONS	16,115,361	13,853,361	2,262,000	NOBLE, PAWNEE
OK	MCKINNEY BUZZARD	APPR	1,594,024	917,944	676,080	MCCURTAIN
OK	OKFUSKEE TRIBUTARIES	CONS	15,958,186	11,055,211	4,902,975	OKFUSKEE, OKMULGEE, CREEK
OK	POTT-SEM-TURKEY	APPR	2,363,811	1,709,811	654,000	SEMINOLE, PATTAWATOMIE
OK	PRYOR CREEK	CONS	8,458,747	5,408,747	3,050,000	MAYES, ROGERS, CRAIG

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
OK	QUAPAW CREEK	CONS	11,142,894	875,789	10,267,105	LINCOLN, POTTAWATOMIE
OK	ROBINSON CREEK	CONS	8,389,819	5,781,787	2,608,032	LINCOLN
OK	SALT-CAMP CREEK	CONS	7,974,839	4,466,389	3,508,450	CREEK, LINCOLN
OK	SANDY CREEK	CONS	8,383,400	5,407,788	2,975,612	GARVIN, PONTOTOC
OK	STILLWATER CREEK	CONS	24,310,680	18,749,380	5,561,300	LOGAN, NOBLE, PAYNE
OK	TRI-COUNTY TURKEY CREEK	CONS	9,336,728	6,396,728	2,940,000	HARMON, GREER, JACKSON
OK	TURKEY CREEK	APPR	4,586,200	3,477,900	1,108,300	GARFIELD, ALFALFA, MAJOR, KINGFISHER
OK	UPPER BAYOU	CONS	9,412,542	6,087,142	3,325,400	CARTER, LOVE
OK	UPPER BLACK BEAR CREEK	CONS	13,603,537	9,403,537	4,200,000	GARFIELD, NOBLE, PAWNEE
OK	UPPER BLUE RIVER	APPR	13,858,000	7,958,000	5,900,000	ATOKA, BRYAN, JOHNSTON, MURRAY, PONTOTOC
OK	UPPER ELK CREEK	CONS	18,912,685	13,427,626	5,485,059	BECKHAM, KIOWA, WASHITA
OK	UPPER MUDDY BOGGY CREEK	CONS	7,198,192	5,513,142	1,685,050	COAL, HUGHES, PITTSBURG, PONTOTOC
OK	UPPER RED ROCK CREEK	CONS	14,422,762	10,476,712	3,946,050	GARFIELD, GRANT, KAY, NOBLE
OK	WATERFALL-GILFORD CREEK	CONS	9,147,014	7,462,014	1,685,000	MCCURTAIN
OR	CALAPOOYA CREEK	APPR	9,785,890	3,708,090	6,077,800	DOUGLAS
OR	GRAND PRAIRIE	CONS	5,525,000	1,923,000	3,602,000	LINN
OR	JUNIPER CANYON	CONS	2,112,800	1,648,400	464,400	CROOK
OR	LOWER AMAZON & FLAT CREEK	CONS	5,370,000	3,410,000	1,960,000	BENTON, LANE
OR	MT. HOOD IRRIGATION DIST.	APPR	764,020	431,415	332,605	HOOD RIVER
OR	NORTH POWDER RIVER	CONS	18,294,400	9,282,400	9,012,000	BAKER
OR	WOLF CREEK	CONS	17,231,000	10,127,000	7,104,000	UNION
PA	BRANDYWINE CREEK	CONS	20,344,075	11,844,075	8,500,000	CHESTER, DELAWARE, LANCASTER, NEW CASTLE(DE)
PA	BRIAR CREEK	CONS	3,969,100	3,109,100	860,000	COLUMBIA, LUZERNE
PA	CLOVER CREEK	APPR	1,853,800	1,279,400	574,400	BLAIR
PA	CROSS CREEK	CONS	9,080,000	5,851,000	3,229,000	WASHINGTON

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
PA	DUNLAP CREEK	CONS	1,994,800	1,344,800	650,000	FAYETTE
PA	JACOBS CREEK	CONS	11,946,400	9,646,400	2,300,000	FAYETTE, WESTMORELAND
PA	LITTLE SCHUYLKILL RIVER	CONS	7,720,400	7,070,400	650,000	CARBON, BERKS, SCHUYLKILL
PA	LITTLE SHENANGO RIVER	CONS	10,551,000	8,658,000	1,893,000	CRAWFORD, MERCER
PA	MIDDLE CREEK	CONS	12,696,000	10,246,000	2,450,000	MIFFLIN, SNYDER, UNION
PA	NESCOPECK CREEK	APPR	6,001,000	3,821,000	2,180,000	LUZERNE
PA	NESHAMINY CREEK	CONS	36,055,000	18,555,000	17,500,000	BUCKS, MONTGOMERY
PA	OIL CREEK	APPR	5,428,000	4,066,000	1,362,000	CRAWFORD, ERIE, VENANGO, WARREN
PA	ROCK CREEK	APPR	2,125,000	1,228,000	897,000	ADAMS
PR	ANASCO RIVER	CONS	11,203,051	5,359,051	5,844,000	ADJUNTAS, ANASCO, LARES, LAS MARIAS, MARICAO, MAYAGUEZ
PR	GUAYANES RIVER	APPR	67,163,400	22,258,600	44,904,800	YABUCOA MUNICIPALITY
SC	CANE CREEK	CONS	14,280,750	7,697,934	6,582,816	LANCASTER, UNION(NC)
SC	CARTWHEEL COMMUNITY	APPR	823,830	395,120	428,710	HORRY
SC	CLARKS FORK-BULLOCKS CREEK	APPR	400,000	200,000	200,000	YORK, CLEVELAND(NC)
SC	FAIRFOREST CREEK	APPR	1,940,000	940,000	1,000,000	SPARTANBURG, UNION
SC	HOLLOW CREEK	CONS	672,100	512,000	160,100	LEXINGTON, SALUDA
SC	LITTLE LYNCHES CREEK	CONS	1,367,700	767,700	600,000	KERSHAW, LANCASTER
SC	LITTLE RIVER	APPR	1,022,000	991,000	31,000	LAURENS
SC	NORTH TYGER RIVER	CONS	3,076,200	1,676,200	1,400,000	SPARTANBURG
SC	NORTHEAST CALHOUN	APPR	899,800	503,850	395,950	CALHOUN
SC	OOLENOY RIVER	CONS	4,782,000	2,982,000	1,800,000	PICKENS
SC	RABON CREEK	CONS	5,100,000	3,600,000	1,500,000	GREENVILLE, LAVRENS
SC	RAFTING CREEK	APPR	899,100	813,370	85,730	LEE, SUMTER
SC	ROCKY CREEK	CONS	2,120,000	1,320,000	800,000	CHESTER, FAIRFIELD
SC	SOUTH TYGER RIVER	CONS	11,862,000	3,362,000	8,500,000	GREENVILLE
SC	UPPER NEW RIVER	CONS	2,840,000	1,840,000	1,000,000	BEAUFORT, JASPER

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
SD	UNION CREEK	CONS	2,026,167	1,944,125	82,042	UNION
TN	BOGOTA	CONS	1,407,900	1,100,800	307,100	DYER, OBION
TN	CANE CREEK	CONS	7,700,000	6,800,000	900,000	LAUDERDALE
TN	CROW CREEK	CONS	4,634,100	4,446,500	187,600	FRANKLIN, MARION, JACKSON(AL)
TN	HURRICANE CREEK	CONS	2,089,100	1,655,500	433,600	DICKSON, HUMPHREYS
TN	MARTIN CREEK	CONS	848,660	616,257	232,403	CARROLL, HENRY
TN	MCNAIRY-CYPRESS CREEK	CONS	16,071,400	11,213,150	4,858,250	MCNAIRY
TN	MIDDLE FORK-OBION RIVER	CONS	3,085,927	2,204,411	881,516	HENRY, WEAKLEY
TN	MUD CREEK	CONS	2,759,600	1,792,100	967,500	WEAKLEY, OBION
TN	NORTH FORK-FORKED DEER RIVER	CONS	4,556,700	1,313,400	3,243,300	GIBSON
TN	PINE CREEK	CONS	4,800,000	3,900,000	900,000	SCOTT
TN	PORTERS CREEK	CONS	3,113,743	2,526,543	587,200	HARDEMAN, BENTON(MS), TIPPAH(MS)
TN	PORTLAND WATERSHED	APPR	598,200	353,400	244,800	SUMNER
TN	RED BOILING SPRINGS	CONS	1,951,800	1,479,000	472,800	CLAY, MACON
TN	REELFOOT-INDIAN CREEK	CONS	6,117,347	3,537,647	2,579,700	OBION, FULTON(KY)
TN	SWEETWATER CREEK	CONS	2,870,000	1,899,900	970,100	LOUDON, MCMINN, MONROE
TN	WEATHERFORD-BEAR CREEK	CONS	1,408,722	1,115,322	293,400	WAYNE
TX	AQUILLA-HACKBERRY CREEK	CONS	13,155,848	9,956,922	3,198,926	HILL, JOHNSON
TX	ATTOYAC BAYOU	CONS	9,564,208	7,233,658	2,330,550	NACOGDOCHES, RUSK, SAN AUGUSTINE, SHELBY
TX	BIG CREEK	CONS	3,880,909	3,499,725	381,184	BRAZOS
TX	CANEY CREEK	CONS	2,739,079	2,146,330	592,749	FANNIN, GRAYSON
TX	CHOCOLATE, LITTLE CHOCOLATE, LYNN BAYOU	CONS	3,219,039	2,399,942	819,097	CALHOUN
TX	CHOCTAW CREEK	CONS	17,572,428	11,675,964	5,896,464	GRAYSON
TX	COMAL RIVER	CONS	5,747,316	4,755,000	992,316	COMAL, GUADALUPE
TX	CORNUDAS, NORTH AND CULP DRAWS	CONS	7,222,300	5,679,000	1,543,300	HUDSPETH, OTERO(NM)

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
TX	DONAHOE CREEK	CONS	3,830,378	3,384,736	445,642	BELL, MILAM, WILLIAMSON
TX	ECLETO CREEK	APPR	9,745,947	8,007,907	1,738,040	GUADALUPE, WILSON, KARNES, DEWITT
TX	ELM CREEK (1250)	APPR	5,576,530	4,877,090	699,440	RUNNELS, TAYLOR
TX	ELM CREEK (CEN-TEX)	CONS	19,543,624	17,610,348	1,933,276	BELL, FALLS, MCLENNAN, MILAM
TX	ESCONDIDO CREEK	CONS	6,598,431	5,817,416	781,015	KARNES
TX	FARMERS CREEK	CONS	7,298,969	6,704,515	594,454	MONTAGUE
TX	HAMILTON CREEK	CONS	1,502,596	1,419,146	83,450	BURNET
TX	HITSON, C&L AND WASHBURN DRAWS	CONS	11,996,777	10,013,652	1,983,125	HUDSPETH
TX	HOG CREEK	CONS	3,811,525	2,828,300	983,225	BOSQUE, CORYELL, HAMILTON, MCLENNAN
TX	LAKEVIEW	CONS	10,175,435	9,605,073	570,362	HALL, DONLEY
TX	LEONA RIVER	CONS	8,150,941	7,433,041	717,900	UVALDE
TX	LOS OLMOS CREEK	APPR	4,355,000	3,600,000	755,000	STARR, JIM HOGG
TX	LOWER BRUSHY CREEK	CONS	5,475,941	3,149,931	2,326,010	MILAM, WILLIAMSON
TX	LOWER PLUM CREEK	CONS	6,280,301	5,337,300	943,001	CALDWELL, HAYS
TX	LOWER RUNNING WATER DRAW	CONS	8,395,395	6,309,023	2,086,372	CASTRO, LAMB, SWISHER, HALE
TX	MCCLELLAN CREEK	CONS	15,661,802	14,654,453	1,007,349	CARSON, GRAY, DONLEY
TX	MILL CREEK	CONS	6,570,120	4,085,100	2,485,020	VAN ZANDT
TX	NORTH CUERO	CONS	2,064,918	1,804,548	260,370	DEWITT
TX	PALUXY RIVER	CONS	26,872,475	24,504,830	2,367,645	ERATH, HOOD, SOMERVELL
TX	PECAN CREEK	CONS	2,804,528	2,599,528	205,000	HAMILTON
TX	PINE CREEK	CONS	5,609,670	3,524,100	2,085,570	LAMAR
TX	PLUM CREEK	CONS	4,617,860	3,577,579	1,040,281	CALDWELL, HAYS, TRAVIS
TX	POLLARD CREEK	CONS	2,613,580	2,466,600	146,980	PALO PINTO
TX	RED DEER CREEK	CONS	7,338,590	6,352,800	985,790	GRAY, HEMPHILL, ROBERTS
TX	RUNNING WATER DRAW	APPR	3,434,170	2,308,696	1,125,474	PARMER, CURRY(NM)
TX	RUSH CREEK	CONS	7,537,131	6,589,600	947,531	COMANCHE, BROWN, EASTLAND

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
TX	SALADO CREEK	CONS	22,194,962	15,947,962	6,247,000	BEXAR
TX	SAN DIEGO-ROSITA CREEKS	CONS	3,649,875	2,251,700	1,398,175	DUVAL, JIM WELLS
TX	SAN FELIPE	APPR	3,127,573	1,092,573	2,035,000	VAL VERDE
TX	SANDERSON CANYON	CONS	34,424,570	34,134,737	289,833	TERRELL, PECOS, BREWSTER
TX	TEHUACANA CREEK	CONS	15,964,217	14,009,328	1,954,889	HILL, LIMESTONE, MCLENNAN
TX	THREE MILE AND SULFER DRAW	CONS	4,905,813	4,671,063	234,750	CULBERSON, HUDSPETH
TX	UPPER BRUSHY CREEK	CONS	6,373,973	4,242,548	2,131,425	WILLIAMSON
TX	UPPER CIBOLO CREEK	CONS	5,206,785	4,479,429	727,356	KENDALL
TX	UPPER LAKE FORK CREEK	CONS	7,281,141	4,563,639	2,717,502	HOPKINS, HUNT, RAINS
TX	UPPER SAN MARCOS RIVER	CONS	11,465,319	9,247,930	2,217,389	HAYS,COMAL
TX	WEST FORK OF BUFFALO CREEK	APPR	1,622,500	998,900	623,600	JOHNSON
TX	YORK CREEK	CONS	4,971,952	3,784,297	1,187,655	COMAL, GUADALUPE, HAYS
UT	BLUE CREEK-HOWELL	CONS	2,954,600	1,995,100	959,500	BOX ELDER
UT	DRY GULCH-MARTIN LATERAL	CONS	539,300	377,300	162,000	DUCHESNE,UINTAH
UT	FERRON	CONS	6,969,800	3,892,100	3,077,700	EMERY, SANPETE
UT	HANSEL VALLEY	CONS	1,176,331	697,131	479,200	BOX ELDER
UT	WARNER DRAW	CONS	6,316,700	3,329,200	2,987,500	WASHINGTON
VA	BUFFALO RIVER	CONS	2,556,035	1,494,510	1,061,525	AMHERST
VA	BUSH RIVER	CONS	6,663,000	3,023,000	3,640,000	PRINCE EDWARD
VA	CEDAR RUN	CONS	4,900,000	2,700,000	2,200,000	FAUQUIER
VA	GREAT CREEK	CONS	1,788,000	1,400,000	388,000	BRUNSWICK, LUNENBURG
VA	LITTLE RIVER	CONS	959,191	361,354	597,837	LOUISA
VA	NIBBS CREEK	APPR	901,400	406,100	495,300	AMELIA
VA	POHICK CREEK	CONS	5,202,764	1,004,144	4,198,620	FAIRFAX
VA	SLATE RIVER	CONS	4,712,000	3,912,000	800,000	BUCKINGHAM
VA	SOUTH ANNA RIVER	CONS	5,946,303	2,946,787	2,999,516	ALBEMARLE, HANOVER, LOUISA
VA	UPPER APPOMATTOX RIVER	APPR	1,397,550	861,675	535,875	APPOMATTOX, BUCKINGHAM, CUMBERLAND, PRINCE EDWARD
VA	UPPER CLINCH VALLEY	CONS	1,600,000	700,000	900,000	TAZEWELL

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
VT	BLACK RIVER	APPR	1,227,600	844,200	383,400	ORLEANS, LAMOILLE
VT	LAPLATTE RIVER	APPR	3,530,350	2,744,400	785,950	CHITTENDEN
VT	LOWER OTTER AND DEAD CREEKS	APPR	1,885,700	1,294,530	591,170	ADDISON
VT	UPPER CASTLETON RIVER	APPR	215,200	135,200	80,000	RUTLAND
WA	EAST SIDE GREEN RIVER	CONS	60,000,000	20,000,000	40,000,000	KING
WA	EAST WENATCHEE	APPR	1,837,660	1,396,180	441,480	DOUGLAS
WA	JOHNSON CREEK	APPR	2,235,000	1,092,000	1,143,000	WHATCOM
WA	MARSHLAND	CONS	7,070,000	5,631,000	1,439,000	SNOHOMISH
WA	NEWAUKUM	APPR	2,139,520	1,374,560	764,960	KING
WA	NEWMAN LAKE	CONS	1,812,000	1,589,000	223,000	SPOKANE
WA	PLEASANT VALLEY CREEK	APPR	2,360,000	1,660,000	700,000	WHITMAN
WI	BAD AXE	CONS	10,178,379	9,330,700	847,679	VERNON
WI	GLEN HILLS	CONS	3,170,829	2,678,470	492,359	DUNN, ST. CROIX
WI	MAIDEN ROCK COULEE	CONS	525,840	502,330	23,510	PIERCE
WI	PINE RIVER	APPR	15,988,370	14,085,970	1,902,400	RICHLAND, VERNON
WI	UPPER SUGAR RIVER	APPR	1,640,150	1,130,280	509,870	DANE
WI	UPPER WEST BRANCH OF THE PECATONICA	APPR	3,247,618	1,393,041	1,854,577	IOWA, GRANT, LAFAYETTE
WI	WEST FORK KICKAPOO	CONS	3,312,100	2,810,000	502,100	MONROE, VERNON
WV	BRUSH CREEK	CONS	9,907,250	3,208,100	6,699,150	MERCER
WV	ELK TWOMILE CREEK	CONS	3,045,700	1,788,100	1,257,600	KANAWHA
WV	HARMON CREEK	CONS	22,974,072	20,448,951	2,525,121	BROOKE, HANCOCK, WASHINGTON(PA)
WV	MILL CREEK	CONS	15,195,300	8,850,800	6,344,500	JACKSON, ROANE
WV	PINEY CREEK-SOAK CREEK	CONS	4,045,100	3,516,600	528,500	RALEIGH
WV	POCATALICO RIVER BASIN	CONS	3,536,900	3,124,700	412,200	ROANE, KANAWA, PUTNAM, JACKSON

PL566 WATERSHED ONGOING PROJECT STATUS AS OF 3/01/85

ST	PROJECT NAME	STATUS	TOTAL COST	FEDERAL COST	LOCAL COST	COUNTIES
WV	POND RUN	CONS	3,156,800	2,869,600	287,200	WOOD
WV	UPPER BUFFALO CREEK	CONS	9,822,700	6,557,400	3,265,300	MARION
WV	UPPER MUD RIVER	APPR	5,980,900	2,864,700	3,116,200	LINCOLN, BOONE
WV	WHEELING CREEK	CONS	21,960,644	18,052,144	3,908,500	OHIO, MARSHALL, GREENE(PA), WASHINGTON(PA)
WY	DOUGLAS	APPR	3,092,000	2,429,000	663,000	CONVERSE
FINAL TOTALS			3,704,007,186	2,451,751,626	1,252,255,560	

CONS=PROJECT UNDER CONSTRUCTION; APPR=PROJECT APPROVED BUT NO CONSTRUCTION DONE.

COMMODITY CREDIT CORPORATION

FOREIGN AGRICULTURAL SERVICE

OFFICE OF INTERNATIONAL COOPERATION AND DEVELOPMENT

STATEMENTS OF:

DANIEL G. AMSTUTZ, UNDER SECRETARY, INTERNATIONAL AFFAIRS AND COMMODITY PROGRAMS

MELVIN E. SIMS, GENERAL SALES MANAGER, DEPARTMENT OF AGRICULTURE

RICHARD A. SMITH, ADMINISTRATOR, FOREIGN AGRICULTURAL SERVICE

DR. JOAN S. WALLACE, ADMINISTRATOR, OFFICE OF INTERNATIONAL COOPERATION AND DEVELOPMENT

ACCOMPANIED BY:

EVERETT RANK, ADMINISTRATOR, AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE

ROBERT E. SHERMAN, BUDGET OFFICER, DEPARTMENT OF AGRICULTURE

OPENING REMARKS

Senator COCHRAN. Now we will turn to our second panel to discuss the commodity programs and various international activities of the Department of Agriculture.

This panel includes Daniel Amstutz, who is our Under Secretary for International Affairs and Commodity Programs; Richard Goldberg, Deputy Under Secretary for International Affairs and Commodity Programs; Richard Smith, Administrator of the Foreign Agricultural Service; Melvin Sims, General Sales Manager; Everett Rank, ASCS Administrator; Joan Wallace, Administrator of the Office of International Cooperation and Development [OICD]; and Bob Sherman, Budget Officer.

We appreciate your being here, and Mr. Amstutz, I am going to turn this over to you and let you orchestrate the presentation of the budget request to the committee.

INTRODUCTION OF WITNESSES

Mr. AMSTUTZ. Thank you, Mr. Chairman. I would like to introduce the members of this panel. To my immediate left is Mr. Dick Smith, Administrator of the Foreign Agricultural Service; to his left, Mr. Mel Sims, General Sales Manager; and finally, Dr. Wallace, Administrator of the Office of International Cooperation and Development. I would like to introduce into the record the biographical sketches of those witnesses appearing before you for the first time.

[The biographical sketches follow:]

BIOGRAPHICAL SKETCHES

RICHARD W. GOLDBERG

Dick Goldberg was appointed Deputy Under Secretary of Agriculture for International Affairs and Commodity Programs on July 21, 1983.

He oversees the activities of three agencies of the Department of Agriculture: the Foreign Agricultural Service [FAS], which is responsible for assisting and improving agricultural exports; the Agricultural Stabilization and Conservation Service [ASCS], which is responsible for domestic commodity programs; and the Office of International Cooperation and Development [OICD], which coordinates USDA interaction and technological operations.

Before joining the Administration, he was President of the Goldberg Feed and Grain Company, West Fargo, North Dakota, a family-owned grain processing and feed manufacturing business. He was associated with the family firm for 25 years.

Before that, he practiced law in Washington, D.C. He is a member of the North Dakota and Florida bars, and has been admitted to practice law in the District of Columbia.

Goldberg has served as a member of the Joint Agricultural Technical Advisory Committee on Grain and Feed to the U.S. Trade Representative and the Secretary of Agriculture. He served as a State Senator in North Dakota from 1966 to 1974.

At the time of his appointment, he was Vice Chairman of the Board of Directors of the Minneapolis Grain Exchange and a director and member of the executive committee of the National Grain and Feed Association.

He received his Bachelor of Business Administration and Juris Doctor degrees from the University of Miami.

Goldberg is married. He and his wife Mary have two children.

THOMAS O. KAY

Thomas O. Kay presently serves as Deputy Under Secretary for International Affairs and Commodity Programs, U.S. Department of Agriculture. Prior to this position he served as Deputy Assistant Secretary for Governmental and Public Affairs. During the time that he served in this capacity he coordinated the Department's legislative programs, congressional hearings and provided overall liaison with Congress.

Kay was Director of Legislative Affairs of USDA's Foreign Agricultural Service from 1981 to 1982. Prior to rejoining the Department in 1981, he served as Executive Assistant to the late Senator Jim Allen of Alabama and before that as Director of Senate liaison for the National Association of Realtors.

During earlier service with USDA, from 1973 to 1977, Kay worked on congressional affairs with the Office of the Secretary and later worked as Confidential Assistant to the Administrator of the Foreign Agricultural Service.

From 1966 to 1973 he served as Administrative Assistant to Congressman John H. Buchanan of Alabama.

A native of South Carolina, he holds a bachelor of arts degree from Furman University in Greenville, South Carolina.

He is married and the father of three sons.

AVRAM E. GUROFF

Mr. Avram E. Guroff is a native of Chicago, Illinois. He did his undergraduate work at Northwestern University and holds a masters degree in business administration from Stanford University. Mr. Guroff began his career in international trade promotion with the Department of Commerce; he joined USDA in 1967 as a member of an agricultural economics team in the Vietnam AID mission in Saigon; he has served with the predecessor agencies of OICD and as a staff chief in the Department's budget office.

From 1979–82 Mr. Guroff was attache for United Nations Food and Agricultural Affairs in Rome. In 1983, he was with the international department of Tenneco, Inc. as a presidential exchange executive. In January of 1984 Mr. Guroff assumed the position of Deputy Assistant Administrator for International Affairs and Planning.

Mr. Guroff is married, has two children and lives in McLean, Virginia.

ARLENE M. MITCHELL

Ms. Arlene M. Mitchell began her career in international development as a Peace Corps volunteer at a health clinic in Diffa, Niger from 1974–1976. She has held various overseas positions with the Peace Corps including health and education coordinator, technical coordinator and health consultant in Niger, Mauritania and Senegal, respectively. Ms. Mitchell has also served as an evaluation specialist, area director and chief of programming and training for the Africa Region of the Peace Corps based in Washington, D.C.

Prior to joining OICD in June 1984, Ms. Mitchell was Chief of Operations for the Africa Region of Peace Corps, responsible for 2,300 volunteers and 230 staff. Ms. Mitchell is currently Acting Deputy Assistant Administrator for International Research and Development, and manages all of the Office of International Cooperation and Development's training, technical assistance, and international research programs.

A native of Michigan, Ms. Mitchell studied communications and psychology at Michigan State University, receiving her B.A. in 1970. She has also studied at the University of Denver and the University of Virginia.

IMPORTANCE OF EXPORTS TO U.S. AGRICULTURE

Mr. AMSTUTZ. In introducing these three witnesses, Mr. Chairman, let me just try to make a very few brief comments. International trade and farm product exports are enormously important to American agriculture.

I frequently have said that we are fast reaching the point where we need only employ half of our resources to feed and clothe ourselves. The question about how we employ that remaining 50 percent of our resources is directly related to our abilities to penetrate and maintain markets in countries other than our own.

We are living in a highly competitive era, where production around the world is growing at a more rapid rate than consumption, and consumption is growing at a more rapid rate than trade.

Given a continuation of current national policies in all trading countries, this trend is likely to continue, which means that the climate could become even more competitive.

In our farm bill, Mr. Chairman, we are trying to directly address the question of why global production is growing at a more rapid rate than either consumption or trade. We think one of the principal reasons relates to incentives for production in a number of countries, including our own. We, via our farm programs, provide incentives for other producers who believe that they can produce at a cost lower than our own levels.

We provide an incentive for them to keep up the production level, because they know we won't sell at less than our own levels.

So without going into a great deal of detail, because I know this is not the proper forum for it, the farm proposal that we have sent up here is designed to directly address the question of the competitiveness of American agriculture and to directly work on the goal of achieving greater penetration of overseas markets.

The people seated at my left are responsible for employing the programs we have at our disposal to move as many farm products into overseas markets as possible. We are bringing unprecedented amounts of credit to bear in these areas, and in a number of other areas such as market development.

FOREIGN AGRICULTURAL SERVICE

First, I would like Dick Smith to give the Foreign Agricultural Service testimony, and then Mel Sims for the General Sales Manager.

PREPARED STATEMENT

Senator COCHRAN. Let me point out that we have statements from each of you. Those statements will be included in the record in full, and we would encourage you to make summary comments from those prepared statements.

You may proceed.

[The statement of Mr. Smith follows:]

STATEMENT OF RICHARD A. SMITH

Mr. Chairman, members of the Subcommittee. I appreciate this opportunity to meet with you to discuss the work of the Foreign Agricultural Service and to present our budget request for fiscal year 1986.

Our request reflects the need for continued work to develop foreign markets in an extremely competitive climate. The volume of U.S. agricultural exports is forecast to be down slightly in fiscal year 1985, and lower prices are expected to reduce its value by over 9 percent to $34.5 billion. Our agricultural trade balance is forecast at $15.0 billion in 1985, an almost 22-percent drop from last year.

The Outlook for Trade

Briefly reviewing our agricultural trade outlook for this year, U.S. wheat and flour exports are forecast to decline to $5.9 billion, down more than $800 million. Strong competition, especially from record European Community production, and weakening import demand are behind the expected decline. These same factors will cause continued pressure on U.S. export prices of wheat.

Coarse grain exports are forecast at $7.4 billion and 58.7 million tons. While volume is up almost 6 percent, lower prices are expected to contribute to an almost 10-percent decline in the value of coarse grain exports from last year's $8.2 billion. Most of the increase in volume will come from expanded shipments to the USSR and the Middle East.

U.S. rice exports in fiscal 1985 will continue to be impeded by weak demand, large world stocks and the strong U.S. dollar.

The value of oilseed and product exports is forecast to decline significantly from an exceptional export year in 1984. The decline is due mainly to increased competition and a significant expansion in world supplies. The volume of soybean exports is expected to about equal the 19 million tons shipped in 1984, but the value is forecast to dip due to lower prices. Increased world oilseed supplies and soft demand will result in lower prices this year.

Exports of horticultural and tropical products are forecast to increase slightly. The increase will be concentrated in horticultural products, as tropical items are expected to show a slight decline.

Livestock, poultry and dairy exports are forecast to decline slightly to about $4.1 billion this year. The bulk of the decrease is anticipated in livestock products.

The value of U.S. imports is forecast to continue strong in 1985. Horticultural product imports may be up more than $500 million because of tight U.S. supplies, especially for fresh fruits and citrus juices and the high value of the dollar.

The strong dollar, lingering debt problems in developing countries and abundant global supplies are major factors in the export slump, and current U.S. farm programs are making matters even worse by allowing foreign competitors to underprice us and by encouraging them to expand production.

To meet this competition, the Foreign Agricultural Service has increased its export promotion efforts. With the Chairman's permission, I would like to summarize our major activities before continuing on to the budget request.

MARKET DEVELOPMENT

The Cooperator Market Development Program continues as a mainstay in our export efforts. More than 50 nonprofit commodity organizations, or cooperators, work with us in this program to identify, develop and expand export markets and opportunities for U.S. agriculture. Cooperators contribute the major share, by a two to one ratio, of the operating expenses of this joint market development program.

Through an annual strategic planning process, FAS and the cooperators jointly evaluate current programs and long-term goals on a commodity-by-market basis to identify those opportunities that are likely to generate the greatest returns for dollars invested. As a result, we are continuing to redirect resources from Japan and Western Europe—where the program now focuses primarily on aggressive trade servicing to maintain sales—toward the Middle East, Africa, Latin America, the Caribbean and Southeast Asia—which offer greater growth potential.

To support this redirection, we plan to open Agricultural Trade Offices (ATOs) in Istanbul, Turkey; Baghdad, Iraq; and Guangzhou, China. This will bring the number of trade offices to 15, of which 13 will be serving developing countries. We also have succeeded in securing ample and permanent space for the Trade Office and cooperator staffs already situated in Beijing. At the same time, we are launching a major campaign in a monthly trade journal distributed to 12,000 contacts in 17 countries throughout the Middle East and North Africa where 5 of our Agricultural Trade Offices will have been established by 1986. Advertisements in this forum, printed in Arabic and English, will publicize the locations and services available through our ATOs and FAS.

The United States currently has about 25 percent of the world market for low-value or bulk products, but only about 14 percent of the high-value market. As a first step toward meeting Secretary Block's goal of achieving 20 percent of this market by 1990, FAS has inaugurated a High-Value/Value-Added Export Incentive Program in cooperation with four regional groups.

FAS has made $250,000 available in fiscal 1985 to the four cooperators to contract with food exporters in each of their respective States. The program encourages private firms to seek out and develop export trade by offsetting a portion of their promotion expenses. The regional State groups administer the program and potential exporters interested in this program are identified by member State government export marketing specialists. In addition, some 56.4 percent of the total 1985 cooperator market development budget is allocated to the promotion of value-added commodities.

Agricultural Information and Marketing Services (AIMS)

FAS has taken the initiative to use modern electronic technology to bring market information to producers and traders. Last year, we began an 18-month project to expand and improve the trade leads and export marketing services offered to U.S. exporters of food and agricultural products. We call this the Agricultural Information and Marketing Services (AIMS) Project. It encourages U.S. exporters to assume a more active role in pursuing export opportunities.

To do this, AIMS has contacted directly over 17,000 firms to inform them of the AIMS Project and its services. Within the next few months, an additional 30,000 firms will be contacted and encouraged to use these services and pursue new export opportunities. As a result of the various educational media used, the number of AIMS' client companies has grown from roughly 300 at the start of the project to over 1,100 and continues to rise.

During 1984, AIMS supplied trade lead clients with almost 6,000 sales leads submitted by foreign buyers seeking food and agricultural products from the United States.

FAS has initiated the BUYER ALERT program, which electronically transfers information about products that U.S. firms would like to sell to targeted foreign buyers in London, Manama, Tokyo and Seoul. In coming months, the service will be expanded to 15-20 posts, which collectively account for approximately 75 percent of all U.S. value-added exports.

FAS is again providing support to the National Association of State Departments of Agriculture's National Food and Agriculture Exposition, to be held in Kansas City in April. Nearly 1,000 foreign buyers from 68 countries attended the 1983 show in Atlanta, where 410 U.S. firms, many of them new to export, exhibited U.S. agricultural and food products. Our 70 attache offices and ATOs are promoting the show overseas and providing support services to foreign buyers attending the show.

TRADE POLICY

FAS is continuing to work for the reduction or prevention of unfair trade practices by other countries. Two trade policy activities of exceptional importance in 1985 will be preparations for tariff negotiations related to the adoption of the "Harmonized System" and work in the General Agreement on Tariffs and Trade (GATT) Committee on Trade in Agriculture (CTA) to establish an approach for removal of import restrictions and export subsidies.

Harmonized Commodity Description and Coding System: All major trading countries have agreed to change their import tariffs to a common, up-to-date format. The last structural revision was 25 years ago. Adoption of the new format will change many of the tariff concessions negotiated with other countries since 1948. FAS has been asked to commit significant resources to identification of these changes and renegotiation of concessions in 1985 and 1986. This effort is essential to assure U.S. access rights in foreign markets.

GATT Committee on Trade in Agriculture: A major effort will be required to achieve greater liberalization in foreign markets for U.S. exports. The reduction and eventual elimination of export subsidies is a major goal. This effort in the CTA also will be channeled into negotiating objectives for a new multilateral trade round, which is expected to be a major initiative of the Administration in 1986.

In other arenas of trade policy, the United States is working toward liberalizing trade with Argentina, Brazil and Canada through a new method of trade dispute resolution. Under this concept, countries exchange lists of trade liberalizing actions, such as tariff reductions or removal of nontariff barriers, which they would like to be taken by the other. In general, these are not major trade issues, but—if successful—would afford increased access to individual products.

Our efforts in trade policy during the past year have achieved some notable results:

—We averted EC actions against imports of U.S. corn gluten feed and other nongrain feed ingredients. We remain steadfast in our efforts to convince the EC to drop the proposed restrictions.

—We achieved the reversal of a U.K. customs decision that reclassified certain prune imports into a higher duty import category.

—We convinced the EC not to include a consumption tax on vegetable fats and oils as part of their Common Agricultural Policy reform decisions of March 1984. Such a tax would have had an adverse impact on U.S. exports of soybeans and products to the EC.

—Brazil is publishing the regulations to liberalize its import regime. The United States has pushed for improved market access to Brazil for many years in the semi-annual trade subgroup and other bilateral meetings. Last year, for the first time since 1981, import licenses were issued for U.S. apple and pear exports in compliance with our negotiated 10,000-ton quota.

—Culminating 18 months of negotiations with the United States, Japan announced in April 1984 that it would expand its high-quality beef and citrus import quotas, reform administration of the quotas and revise blending requirements for imported orange juice concentrate. The projected value of additional U.S. beef and citrus sales over the four-year life of the agreement is approximately $400 million.

—Japan has pledged to reduce tariffs on 36 agricultural products, effective April 1, 1985. U.S. exports to Japan of items slated for tariff reduction totaled $460 million in 1982. The cuts will be of particular benefit to selected meat products, whey, peanut butter, soy protein and canned corn.

—Japan also has announced the elimination of quotas on hi-test molasses and other sugars, certain fruit purees and pastes, some fruit pulps, selected fruit juices and various other food preparations containing added sugar. Import quotas on prepared and preserved pork will be eliminated this year and on grapefruit juice in 1986.

The Agenda for This Year

Much of our trade policy resources will be devoted to the major multilateral negotiations that I mentioned earlier. At the same time, we intend to continue our efforts in the bilateral area as well.

—JAPAN: Following discussions in early January, the United States and Japan have agreed to launch an intensive effort to remove barriers to imports and increase foreign participation in the Japanese economy. The forest products sector is one of four sectors chosen for intensive, high-level talks and a long-term effort to identify and eliminate Japan's formal and informal barriers to wood and paper product imports will be launched.

—KOREA: We continue to maintain a high-level focus on the need for further, more meaningful and faster liberalization of Korea's import regime affecting a wide range of higher value products for which good export potential exists.

—TAIWAN: We will be seeking further liberalization of higher value agricultural and forestry products, which continue to face relatively high tariff barriers and of products subject to Taiwan's Tobacco and Wine Monopoly Bureau.

—INDIA: We will be seeking further liberalization of India's licensing and tariff barriers on dried fruits and nuts, particularly almonds.

BUDGET REQUEST

The fiscal year 1986 budget request for FAS salaries and related expenses is $82.446 million, a net decrease of $1.276 million from the adjusted base for fiscal year 1985.

The budget reflects a reduction of $2.751 million associated with management savings, a 5-percent reduction in pay costs, and the elimination of direct appropriation funding for the purchase of LANDSAT data.

We plan to continue to purchase LANDSAT data to cover the Soviet Union with funding provided on a reimbursable basis from the Commodity Credit Corporation. These funds would be made available based on a Memorandum of Understanding between FAS and the Agricultural Stabilization and Conservation Service establishing a cooperative remote sensing effort for domestic and international crop condition assessments.

These decreases are partially offset by increases totaling $1.475 million, which consist of $475,000 for annualization of fiscal 1985 pay costs and $1.0 million to maintain current services of our worldwide agricultural counselor/attache network and our Agricultural Trade Offices, and to fund the opening of a new Trade Office.

For fiscal year 1986, funding for the Foreign Market Development Cooperator Program will remain at the fiscal 1985 level.

We are grateful for the continued support of this subcommittee and for the opportunity to appear before you.

That concludes my statement, Mr. Chairman. I will be glad to respond to questions.

CURRENT EXPORT SITUATION

Mr. Smith. Thank you, Mr. Chairman. I will discuss some of the FAS programs, and then Mel Sims will talk about the programs of the General Sales Manager.

As Under Secretary Amstutz indicated, exporting is very difficult in this extremely competitive climate that we now face around the world.

Our export forecast for this fiscal year shows our volume down slightly to 142.5 million tons and value decreasing about 9 percent to $34.5 billion. I think you have heard on many occasions what the causes of our decline in exports are. I think it is useful to reiterate them quickly here. One, we have seen some problems with overall demand in the world as a result of economic conditions. This has been made even more difficult for us by the lingering debt problem that is facing many of the less developed countries where, we believe, a good part of the potential exists for increasing exports. This situation is further compounded by the strong dollar.

Finally, the inflexibility of our farm programs has made it much more difficult for us to be competitive in world markets right now.

FAS EFFORTS TO EXPAND EXPORTS

Despite this situation, we are continuing to intensify our export promotion programs. I might add that one bright spot certainly has been the trade with the Soviet Union. This year, we are expecting record sales, approaching 20 million tons. So far, under the current trade agreement, 7.9 million tons have been sold, which is already a record.

Whether this will continue is very difficult to say, since weather is always a very important factor in that market.

We are continuing to redirect our resources from some of the more developed, traditional markets in our market development program. We are trying to focus more on the Middle East, Africa, Latin America, the Caribbean, and South and East Asia.

We think this is where the greatest potential exists. We plan to open three new trade offices this year in Istanbul, Baghdad, and Guangzhou in China, that will bring us up to 15. I might add that 13 of these are in developing countries.

We have also worked hard to develop programs for our high value-added products. For example, in fiscal year 1985, FAS inaugurated a high value, value-added Export Incentive Program in cooperation with our four regional State groups. We currently have over one-half of the current cooperator market development budget allocated to the promotion of value-added commodities.

We are continuing to work on the development of the Agricultural Information and Marketing Service Project, called AIMS, which will improve our ability to give exporters trade leads and marketing information on what commodities our customers overseas want.

We also initiated the Buyer Alert Program, which allows our exporters to provide supply information to buyers overseas about what they have available to sell.

TRADE POLICY ACCOMPLISHMENTS

Trade policy will continue to be a very high priority. A major accomplishment this year was a Japanese agreement to increase high quality beef and citrus import quotas, accomplished through very intensive negotiations led by our Under Secretary. Additionally, Japan has pledged to reduce tariffs on 36 agricultural products effective April 1. We were also successful in averting EC action on U.S. corn gluten feed and other nongrain feed products. We also worked very hard to convince the EC not to include a consumption tax on oils and vegetables as an adjustment to the Common Agricultural Policy reform decisions made in 1984.

This year, we will continue our emphasis in the trade policy area. We are looking at Japan, Korea, Taiwan, and India as areas where tariff and nontariff barriers could be reduced.

FAS FISCAL YEAR 1986 BUDGET REQUEST

For this fiscal year, we are asking $82.4 million for FAS salaries and related expenses. This is a net decrease of $1.3 million from the adjusted base in fiscal year 1985.

I might add that although this request is less than last year's budget, we believe that we can continue our very aggressive export promotion activities. This is due to the fact that the strong dollar is helping us in terms of available funds overseas, and we are also more successful in increasing private sector contributions to the market development effort.

As a result, we feel we can carry out a very aggressive program at the level requested in the budget.

Thank you.

Senator COCHRAN. Thank you very much.

OFFICE OF THE GENERAL SALES MANAGER

Our next witness on this panel is Mr. Melvin Sims, General Sales Manager. Your prepared statement will be inserted in the record at this point.

[The statement of Mr. Sims follows:]

STATEMENT OF MELVIN E. SIMS

Mr. Chairman, members of the Subcommittee. I appreciate the opportunity to discuss with you the programs of the Office of the General Sales Manager and to present our budget request for fiscal year 1986. In my capacity as General Sales Manager, I report to the Secretary of Agriculture and to the Commodity Credit Corporation Board.

The reduced competitiveness of U.S. farm products in world markets in recent years is a serious problem not only for U.S. agriculture but also for the entire economy. The U.S. dollar continues strong, world supplies are large, competition has increased, and many importing countries face economic and debt problems. In addition, U.S. farm programs have inhibited efforts to compete on price.

As long as these conditions persist, maintaining and expanding markets for U.S. farm sales will be tougher than ever. That is precisely why the Office of the General Sales Manager has moved aggressively to use our financing programs to help counteract economic problems faced by many of our customers who offer longer term potential. The export credit and food aid programs that I administer will move an estimated $7.3 billion of U.S. farm commodity exports to foreign countries this year. Additional exports will be provided through direct sales of CCC-owned commodities, including the special sales program for African countries, Section 416 commodity donations, and wheat and wheat products provided from the Food Security Wheat Reserve.

Last year, these programs helped to move close to 16 percent of U.S. agricultural exports. This year, they will finance 20 percent of our exports. However, even these programs cannot overcome a substantial competitive disadvantage.

Our budget request for fiscal year 1986 reflects the continuing need for the United States to use these programs to the fullest extent possible. These efforts will bolster U.S. agriculture's competitive stance in the world market by supporting the unique role of the General Sales Manager as the principal overseas salesman not only for the Department, but more importantly, for U.S. farmers as well.

In this sales role, during the past year-and-a-half I have visited 15 key markets in the Middle East, Africa, Asia, Europe, and South America to meet with foreign government officials, official buying agencies, private sector importers, and U.S. cooperator representatives.

GSM sales activities are backed by an extensive support system that includes direct access to almost the entire range of government and private sector trade information and expertise. For example, the FAS world-wide agricultural intelligence gathering system, based on our network for Agricultural Counselors and Attaches covering over 100 countries, provides the kind of information needed for timely responses to changes in market and credit situations, while use of the entire range of resources of the Commodity Credit Corporation is invaluable in implementing both credit and donation programs.

Credit Programs

The workhorse of our financing effort has been the Export Credit Guarantee Program, aided by the flexibility of the blended credit program and the reliability of the P.L. 480 Food for Peace Program.

In recent years, we have provided record levels of Commodity Credit Corporation export credit to help expand foreign sales of U.S. farm products. Over the period FY 1982 through FY 1986, we will have made available some $22 billion in export credit guarantees, and an all-time high of $5 billion in guarantees is authorized for this year.

Close to $900 million in export sales has been registered out of the $4.3 billion announced thus far this fiscal year. We are continuing a major effort to allocate these guarantees early in the fiscal year to better serve our customers and U.S. agriculture.

In addition, $100 million was approved for GSM-5 financing of farm sales overseas in fiscal 1984, and the blended credit program, instituted in 1983 as a three-year effort to combat subsidized competition, provided financing for $443.9 million of farm exports.

While we had anticipated significant exports under this blended credit program again this year, the recent U.S. District Court decision concerning the application of federal cargo preference laws to the program has resulted in a suspension of any registrations under the announced lines of credit. At present, the suspension is to continue indefinitely.

These programs have been valuable tools in market development efforts. Iraq is a good case in point. Our market development cooperators for wheat and rice have been active in Iraq for many years. Their efforts combined with credit guarantees have greatly expanded the U.S. position in this market. Iraq was first approved for CCC credit programs in fiscal year 1983, with $435 million in U.S. sales covered that year. Coverage jumped to $681.8 million in 1984 and to $710 million for fiscal 1985.

In tandem with these increases, direct U.S. agricultural sales to Iraq, which were about $135 million in 1982, could reach $700-800 million this year. Not only has the availability of financing helped to boost commercial sales, but the expanded trade may have helped re-establish diplomatic relationships between our countries.

We have focused our attention on developing countries because that is where the greatest market growth potential lies. We are working to support growth in these countries and to establish open two-way trading relationships with them. We are seeing this emphasis pay off in parts of Asia.

In Korea, for example, U.S. financing programs have made a highly significant contribution to the rapid growth of U.S. agricultural exports to that country.

U.S. export financing--initially under P.L. 480 concessional terms and more recently with GSM-102--has encouraged development of a large commercial wheat market in Korea and has maintained the U.S. share at close to 100 percent. However, competition for these sales is heating up. Korea recently bought feed wheat from Australia, primarily because of the cheaper price, and credit may be the key to holding our large market share. Credit arrangements have also been important for sales of other commodities to Korea--making that country our sixth largest farm market last year.

Without credit some countries would have had to go without needed foodstuffs. In other cases, credit enabled us to make sales that otherwise would have gone to competitors. Agricultural credit also frees up foreign exchange for badly needed industrial supplies for many developing nations, allowing them to maintain economic growth. That growth in turn helps long-term growth of agricultural markets.

Public Law 480--Food for Peace Program

The Public Law 480 Food for Peace Program, which commemorated its 30th anniversary in July, has an outstanding record of success in supporting and integrating the economic, humanitarian, and foreign policy objectives of the United States.

The Title I concessional sales program has been effective in economic development and in the creation of commercial markets for U.S. farm products. It has been expanded in recent years, growing from a total of just over $800 million in 1982 to $1.1 billion in fiscal year 1985.

We have continued our efforts to accelerate the signing of agreements under the Title I program. About $485 million of the allocations for fiscal 1985 were signed by the end of the first quarter, compared with $240 million for the same period last year. This, in effect, doubled the amount of commodities programmed during the first quarter.

We are working to speed up the Title I process even further and, ideally in coming years, the initial steps will take place even before the fiscal year begins. This has obvious benefits for U.S. agricultural marketing, but even more important, it enables recipient countries to prepare for shipments and provides the opportunity for more orderly purchasing.

We also have moved to provide special assistance to the drought-stricken African nations, especially under the Title II donations program.

In recent years, the United States has provided almost half of all the food aid received by countries in Sub-Saharan Africa. P.L. 480 assistance to that region during fiscal year 1985 has already exceeded last year's total. So far this fiscal year, over 2 million tons of P.L. 480 assistance, valued at $612 million have been approved for Sub-Saharan countries--over $419 million in regular and emergency Title II donations and over $193 million under Title I/III long term concessional credits.

An additional $411 million, as identified by the President in early January, in famine relief for Africa this year will bring total 1985 emergency and regular food aid and disaster relief to more than $1 billion. Total fiscal 1985 U.S. emergency aid will exceed 1.5 million tons--about half of the total projected need.

Relief is targeted for Ethiopia, Sudan, Kenya, Mozambique, Mali, Chad, Niger and other needy countries affected by the drought. In addition to these special programs which we worked closely with AID to implement, Title II traditional humanitarian efforts have continued in all parts of the developing world.

Special Africa Sales Program

In legislation enacted in March 1984, the Commodity Credit Corporation was authorized by Congress to make available up to $90 million worth of wheat, corn and rice from its inventory for sale on a competitive bid basis or barter to U.S. exporters to sell to African countries requiring emergency food assistance. The amount of CCC commodities available for this program was later increased by further Congressional action.

The intent of the program was that the sales be made through private trade channels rather than on a government-to-government basis. Therefore, no attempt was made to determine in advance the country distribution of these commodities. Thirty-two African countries affected by the drought and receiving U.S. emergency food assistance were determined eligible to participate.

Because of a number of program implementation problems, the first invitation to bid issued in June, resulted in successful contracts for the export of only $22.7 million of commodities to six countries. In January 1985, additional bids were accepted from six U.S. exporters for $66.7 million of wheat, corn and rice sold to nine African countries. As of mid-February when payment and documentation were due to the CCC, contracts with four U.S. exporters for sales to importers in six of those countries had been completed. The other contracts were cancelled due to the failure of importers to establish letters of credit.

To date, more than 300,000 tons of grains valued at $61.9 million have been exported, or will be in the near future, to Benin, Burkina Faso, Djibouti, Guinea, Kenya, Mali, Senegal, Togo, and Zaire.

A third invitation for the balance of the commodities has been issued and we expect additional exports shortly.

Section 416

The United States also is donating dairy products to African nations under the Section 416 overseas donation program in fiscal year 1985. Nearly 44,000 tons of dairy commodities valued at $39.4 million have been approved for relief to 11 African countries. An additional $8.5 million will be expended on transportation costs associated with these donations, for a total Section 416 assistance to Africa of $47.9 million.

During fiscal 1984, a total of over 260,700 tons of dairy products were obligated for shipment to 12 countries under the Section 416 program--up from 171,210 tons the year before. This included 176,680 tons of nonfat dry milk, 27,416 tons of butteroil, 36,631 of butter and 20,022 tons of cheese. In terms of world market value this was equivalent to $246 million. Countries receiving these products included the Philippines, Poland, Sri Lanka, Tanzania, Mozambique, Brazil, Chile, Haiti, Mauritania, Mexico, the Dominican Republic, and Peru.

Additional agreements are being developed and received for committing increased levels for fiscal 1985.

We have also been working to develop regulations and procedures to include wheat in this program as authorized by the Agricultural Programs Adjustment Act of 1984. And since passage of that legislation, pilot shipments of ultra-high temperature (UHT) fluid processed milk to Tanzania and Haiti have been made.

Food Security Wheat Reserve

To help meet Africa's wheat needs, President Reagan determined that up to 300,000 metric tons of wheat may be released from the United States Food Security Wheat Reserve for donations to Africa and South Asia. The wheat will be distributed through P.L. 480 Title II mechanisms. This is the first time that food has been released from the reserve since it was established in 1981. Through mid-February, 130,000 metric tons of wheat and wheat products have already been approved for shipment to Africa this year.

Sales from CCC Inventory

A number of sales of surplus dairy products have been negotiated thus far in fiscal 1985. Iraq is buying 12,000 tons of nonfat dry milk and 2,560 tons of butteroil valued at $11.8 million. The milk was owned by the CCC, and the butteroil is being processed from butter owned by the Corporation.

In December, another contract was signed with Egypt for the sale of 35,000 tons of butter, butteroil and cheese. The total value of that sale, made at current market prices, was $47.8 million.

The United States also sold 10,000 tons of nonfat dry milk valued at $7.4 million to CONASUPO, the Mexican government's food purchasing agency. Mexico is a traditional export market for nonfat dry milk and has indicated that it will give the CCC an opportunity to participate in any future tenders for nonfat dry milk to meet Mexico's import needs.

Barter

An interagency group was established in January 1984 to review barter proposals made to the U.S. Government. Barter will be used to acquire materials for the National Defense Stockpile when in the best interest of this country and when the barter proposal is determined to be a cost-effective means of filling stockpile deficiencies.

Since February 1982, we have entered into three barter arrangements with Jamaica for the exchange of $47 million worth of U.S. dairy products, wheat and rice for Jamaican bauxite. These were the first barter arrangements since late 1967 when the CCC barter program was terminated.

Under the agreements, the United States will exchange 33,171 tons of nonfat dry milk, 5,688 tons of butteroil, 46,755 tons of wheat and 3,763 tons of rice for 1.4 million tons of bauxite. This will provide an outlet for U.S. government-owned commodities and aids our national defense posture while contributing to Jamaica's effort to rely on production and exports to fuel economic recovery.

GSM Cooperation within FAS and with Other Agencies

Cooperation with many other agencies is essential to carry out the varied responsibilities of the Office of the General Sales Manager. We work with AID to implement P.L. 480 and Section 416 donation programs, with ASCS on commodity sales, with OICD in dealing with other international organizations, and, most closely and broadly, with FAS.

Our link to Foreign Agricultural Service market development and commodity specialists, analysts, and counselors, attaches and trade officers around the world enhances the effectiveness of GSM programs. We benefit from the results of their analytical and information gathering activities. The overseas staff plays a vital role in liaison and developmental work with foreign governments and in carrying out the necessary local supervision of GSM programs.

In my travel to countries throughout the world to carry out GSM programs, FAS support has been invaluable on missions regarding market development, export credits, P.L. 480, and surplus commodity disposal.

Budget Request

CCC Export Credits

The Secretary has directed that I make available $5.0 billion for export credit programs in fiscal year 1985 to facilitate exports. This is the same level as FY 1985. The level can be adjusted should conditions warrant.

Authorization for the credit guarantee programs does not represent direct outlay of funds unless there is a case of debt rescheduling or non-payment to the U.S. banks that actually make the loans to the recipient country. No direct credit activity is planned in FY 1986.

P.L. 480

In 1986, we are requesting a total program level of $1,680 million for the P.L. 480 program, a decrease of $427 million from planned programming in 1985, which includes substantial supplementals. Our request for the Title I/III sales program is $1,030 million, which will provide long-term concessional financing for almost 5 million metric tons of agricultural commodity exports.

We are requesting a program level of $650 million for the Title II program, which will provide 2.0 million metric tons of food donations. This is well above the minimum tonnage required by Section 201 of the authorizing legislation. We will continue to monitor food needs, especially in Africa. Should additional needs develop, we will identify the necessary steps to address those needs. The total tonnage under the P.L. 480 program is estimated at 7 million metric tons.

General Sales Manager

In FY 1986 we are requesting $5.9 million for the General Sales Manager to carry out these programs, which will be funded by allotment from the Commodity Credit Corporation. This represents a slight decrease from the $6.1 million provided in the current estimate for FY 1985.

USE OF CREDIT TO ENHANCE EXPORTS

Mr. SIMS. Thank you, Mr. Chairman. In view of declining exports, we have aggressively used the financing programs that we have. As a result, we will export approximately $7.3 billion this year under our credit programs, which amounts to about 20 percent of our total exports, up from 16 percent last year.

Under our credit programs, from the period of 1982 to 1986, we have made available $22 billion in export credit guarantees, including $5 billion during this fiscal year, which is a new high.

Under our Direct Credit Program, $100 million was available last year. Under the Blended Credit Program, approximately $444 million was available last year. Under our Public Law 480 Program, we had $1.1 billion available in title I and a similar amount for title II this year because of the emergency situation in Africa.

We had a special African Sales Program, which is almost completed, of $90 million for 11 countries there. This past year we moved about 260,000 tons of dairy products in the Section 416 Program. You are aware that the President released 300,000 tons from the Wheat Security Reserve last December for Africa.

We have also sold approximately 66,000 tons of surplus dairy products, totaling $74 million, to Egypt, Iraq, and Mexico, and have completed a series of barter agreements with Jamaica.

PUBLIC LAW 480 FISCAL YEAR 1986 BUDGET REQUEST

Our budget request for 1986 is $1.68 billion for Public Law 480, which is down somewhat from this year's expanded program, primarily because of the emergency in Africa. In fiscal year 1986, $5 billion is expected to be available for the Credit Guarantee Program.

For our administrative expenses, we are asking $5.9 million, which is a slight reduction from the present year. This is not an appropriated amount.

Thank you.

Senator COCHRAN. Thank you, Mr. Sims.

OFFICE OF INTERNATIONAL COOPERATION AND DEVELOPMENT

Our final witness on this panel is Dr. Joan Wallace, Administrator of the Office of International Cooperation and Development. Your prepared statement will be inserted in the record at this point.

[The statement of Dr. Wallace follows:]

STATEMENT OF DR. JOAN S. WALLACE

Mr. Chairman, members of the Subcommittee. Thank you for this opportunity to review the programs and proposed budget of the Office of International Cooperation and Development.

As you know, our mission is to help U.S. farmers and international trade through USDA's international science and technology programs. Our programs directly benefit the American farmer through the identification of improved germplasm, development of disease control measures and stimulation of potential export markets. Programs are conducted cooperatively with other USDA and U.S. government agencies, universities, and the private sector and are funded by appropriated, reimbursement, and trust funds.

Fiscal Year 1986 Budget Request

Our fiscal year 1986 budget request for both appropriated accounts totals $3.8 million which is $6.2 million below the fiscal year 1985 level of $10.0 million. This net decrease consists of several items of change which I will briefly outline.

The most significant change is the reduction of $5 million for foreign agricultural research paid for through excess foreign currencies held by the U.S. Treasury. There are no new funds requested for this program in fiscal year 1986. However, research projects underway will continue until completion.

Funding for Middle Income Country Training has also been eliminated for a reduction of $1.5 million. In fiscal year 1985, approximately 100 students from AID - graduate countries were selected to receive technical and/or academic training over a 2 1/2 year period and will continue to receive training until completion of their studies. No new participants will be selected in fiscal year 1986.

We are requesting one program increase of $200,000 for an International Agriculture Information Center. The Agribusiness Promotion Council, appointed by the Secretary of Agriculture, recommended that such a center be established within OICD to provide a central information point for responding to inquiries from the U.S. private sector and developing countries on trade and investment opportunities in the Third World.

The final two items of change are an increase of $126,000 to fund increases in non-pay inflation costs and a net decrease of $74,000 for management savings. These are consistent with proposals for most other agencies in the Department.

There will be increases in our activities not funded by appropriated dollars. Funding for our training and technical assistance activities, which comes primarily from the Agency for International Development, should increase five percent in fiscal year 1986 to approximately $35.2 million. The bilateral technical assistance, training and research programs we have with several nations, which are paid for by trust funds, will decrease from $7.9 million in fiscal year 1985 to $7.1 million in fiscal year 1986.

Agency Accomplishments

Although OICD's budget is relatively small compared to other USDA agencies, it has a multiplier effect. If I had to point to the single thing OICD does best, I would have to say it is "leveraging resources". In our USDA-funded programs we use few dollars, but we manage to enlist the resources of U.S. and foreign research agencies, universities here and abroad, and the private sector. We have put those resources to good use in the last year and I would like to highlight some of the progress we've made supporting U.S. agriculture through our international programs.

Scientific and Technical Exchanges

One of our most cost-effective and practical programs is scientific exchanges with other nations. Last fiscal year, OICD sponsored 98 exchanges with 24 different countries involving 243 U.S. and foreign scientists. These exchanges are very cost effective ways to support U.S. agricultural production and trade. Participating countries, universities, and USDA cooperators contribute roughly three dollars for every dollar spent by OICD. Recent efforts have ranged from exploratory research to direct exchanges of technology.

One practical goal of the exchanges we sponsored is to save U.S. farmers money. For example, farmers spend $50 million on insecticides each year to contain Heliothis, a caterpillar that hinders production of cotton, soybeans, tobacco, corn and other crops. Using specimens collected in an exchange program with Australia, researchers at the U.S. Delta States Research Center and

Mississippi State are conducting crossbreeding trials to try to discover a sterile male trait for use in biocontrol measures.

Acid rain has become a "hot topic" in the last few years as concern continues to grow about its effects on forests and agricultural production. It has become clear that policymakers and scientists need more information about acid rain before thay can make informed decisions about how to control it. To save the U.S. valuable research time and money, OICD has sponsored scientific exchanges with West Germany, the world leader in research on acid rain. In addition, we have sponsored research with France on the response of plant leaves to sulfur deposits with the aim of developing crops more resistant to the effects of acid rain.

In another exchange with West Germany, OICD arranged for scientists from our two countries to work jointly on basic research on avian influenza. The West Germans have already made substantial progress in studying the molecular virology of avian influenza viruses and U.S. research will benefit from this work. The recent outbreak of this disease in the U.S. cost $61 million in lost poultry production and control expenses.

Perhaps the most promising development in our exchange program last year was the resumption of activities with the Soviet Union. In December, Secretary Block and Soviet Agriculture Minister Mesyats agreed to resume exchanges which had largely ceased in 1980. Given the tremendous value of the USSR as a market for U.S. farm products, OICD will be arranging exchanges geared toward sharing economic and production data, as well as scientific and technical information.

International Research

Our International Research program also sponsors projects designed to cut farmers' costs. Under the Binational Agricultural Research and Development fund (BARD), Israeli scientists and researchers at Texas A & M are studying a new mobile irrigator for farm use. Activated by water pressure alone, the irrigator moves automatically to water vast areas. Once perfected, systems employing mobile irrigators could save our farmers millions of dollars and replace drip irrigation in some regions. In another interesting project, researchers at Hebrew University and the University of California at Davis are studying solar heating of soils using transparent polyethylene sheeting to control soil-borne diseases and pests without using chemicals.

Last October, we began a new Trinational Research Program that serves important U.S. foreign policy objectives. This three year, $2.5 million program is funded by AID and promotes agricultural cooperation among Egyptian, Israeli, and U.S. scientists. Research will focus on water use and cropping techniques, solar heating of soils to control fungal diseases and weeds, medicinal uses of desert plants, dairy production, and economic evaluations of different methods of exchanging agricultural technology.

This past year we began new research under the 1983 U.S.-Spain Treaty on Friendship, Defense, and Cooperation. Thus far, 15 joint research proposals have been approved. A number of practical projects benefiting both nations will soon be under way. Mississippi State University and Spanish researchers will be evaluating cultivars of legume species to improve nitrogen fixation. USDA and Spanish scientists will seek basic research information needed to improve wheat quality using recombinant DNA methods. USDA, Purdue University and the Spanish Ministry of Agriculture will be studying barley yellow dwarf virus, a major disease of cereal grains both here and in Europe.

Cooperative research with other nations continues to benefit American farmers. In OICD-supported research with Mexico, USDA scientists are studying the migratory patterns of insects that affect crops in the South and Great Plains, such as the corn earworm and fall army worm. By studying the seasonal, windblown movements of these pests in the U.S. and Mexico, scientists hope to develop prediction models that will help farmers pinpoint the most effective timing and scope for applying insecticides.

Other research we've initiated recently includes studies on growing vegetables in greenhouses and the factors limiting the expansion of this agroindustry. Researchers at Rutgers University are working with the Netherlands Ministry of Agriculture on supplemental lighting, mechanization, and more efficient production techniques to provide continuous winter production of fresh vegetables. The Dutch have long been leaders in greenhouse technology.

In another new project, scientists in the Sudan, Senegal, and Botswana will cooperate with Old Dominion University to identify and develop biological controls of weeds of the Striga genus. Commonly known as witchweeds, this root parasite causes major losses in corn, rice, sorghum, and broad leaf crops. Two of the three most damaging species have become established here in the United States, spreading through much of the Carolinas despite major efforts to contain and eradicate them.

Special Foreign Currency Research

OICD has been a major user of U.S.-owned foreign currency, using those funds to support numerous research projects abroad that benefit this nation's agriculture. Funding for the Special Foreign Currency Research was not included in our fiscal year 1986 budget; however, many previously funded projects will continue over the next few years. And I would like to report briefly on the contributions being made by a number of ongoing SFC projects.

Other noteworthy research under the Special Foreign Currency program is focused on mite infestations of bees, which has become a serious problem recently, especially in Florida and Karnal Bunt, a devastating fungal disease of wheat recently found in Mexico that now threatens U.S. producers.

Involving the Private Sector in Development

Another highlight in the past year was our continued success in getting the private sector more involved in international development. We sponsored our second Agricultural Marketing Workshop for the Caribbean in Miami drawing over 700 participants from the U.S. and the Caribbean. The workshop generated substantial business that has been every bit as beneficial to the United States as it has been to the Caribbean nations. Preliminary reports indicate that over $108 million worth of contracts were signed on site with an additional $300 million in contracts expected to be signed at later dates.

USDA's Liaison With International Organizations

In our dealings with international organizations on behalf of USDA, we have worked hard to strengthen the U.S. voice. We have successfully placed a number of Americans in high level positions in the Food and Agriculture Organization, and we have forcefully presented USDA positions on the funding for projects.

We have also monitored agricultural lending by the development banks to minimize the number of projects financed that run counter to U.S. farm interests.

Training and Technical Assistance

The bulk of OICD's technical assistance and training programs are not funded through the USDA budget. But we are the agency concerned with development and our activities in concert with AID, FAO, and the development banks make a valuable contribution toward improving world food security.

In 1984 the issue of food for the poor in the developing world once again came to the fore in a painful way. We are all aware of the nightmare that has unfolded in Africa. The lives of millions are scarred by hunger and deprivation on a scale that we can only imagine. Disease is rampant. Life expectancy is less than 50 years. Children between the ages of 1 and 4 die at twenty times the rate they do in the United States and other developed countries. Those who have visited the camps in Ethiopia -- as I have -- return with a sense of horror.

As the African food crisis worsened this past year, the media "discovered" the issue of agricultural development. Initially, attention focused on the emergency assistance the U.S. offered through PL 480. But soon people began to take a closer look at long-term efforts to help Africans free themselves from an historical cycle of droughts and famine, halt the rapid depletion of their natural resources, and set sound policies that foster agriculture. We at OICD, have involved ourselves in efforts with those goals in mind.

Training and technical assistance -- investments in the people of Africa -- are every bit as important as emergency food aid and balance of payments support. Working with the Agency for International Development, FAO, and the development banks, OICD sent 214 scientists and technicians to conduct 40 projects in 20 African countries last fiscal year. Our projects are quite varied, dealing with:

-- food production, marketing, and storage;

-- livestock improvement;

-- water and environmental management;

-- stengthening management of development projects so assistance money i-
well spent;

-- expanding knowledge of dryland farming; and

-- improving nutrition and health among the rural population.

In the last few years, Africans have made up almost half the 2500 foreign agriculturists who take part in OICD training programs annually. Courses range from basic food production to agricultural management and are conducted both here and overseas. In one particularly successful training effort in Tanzania, OICD has focused on improving the management and technical skills of people working in rural development organizations. Other recent courses have dealt with grain storage, transportation, and preventing postharvest losses.

In a new training program funded last year, OICD is working with middle income countries in Africa and elsewhere. This training effort seeks to strengthen agricultural development in recipient countries and, as a result, it also fosters sales of U.S. agricultural products. Geared toward nations that have graduated from AID assistance programs, this year's training program will include participants from the Ivory Coast, Algeria, Iraq, Turkey, Yugoslavia, South Korea, Mexico, and Venezuela.

FAS cooperators, such as the U.S. Feed Grains Council, American Soybean Association, and U.S. Wheat Associates helped design the training and select trainees. Typically, participants are administrators, agronomists, and technicians who study agricultural marketing, management, research, food production and processing, and related topics. So far, the response to the program has been enthusiastic both in recipient countries and among U.S. producer associations.

Development Fosters Trade

Development efforts are sometimes criticized as not being in the interest of U.S. farmers and cutting into their export markets. Since OICD occupies a pivotal position -- on the one hand working in development in Third World countries and on the other working on behalf of the American farmer -- I would like to comment on that issue.

Ultimately, assistance to developing countries is a form of long-term market development for American farm products. Admittedly, events in the last few years make it hard to think of the developing world as the market of the future for our farmers. The poverty in Sub-Saharan Africa seems insurmountable. The debt crisis in Latin America remains a serious threat to international lenders and has led to tighter credit. Prices paid for many of the commodities traditionally exported by developing countries remain low, limiting their ability to obtain foreign exchange to pay for needed food imports.

But in the long run the developing nations are still the most promising outlet for sales of U.S. farm products. The importance of these nations as markets has become increasingly apparent in the last 20 years.

Using 1965 as a base, the volume of U.S. farm exports to developing countries grew far more rapidly than it did to developed countries during the years 1965 to 1980. That overall pattern has continued and in recent years food imports by developing nations have averaged well over a third of U.S. export sales.

Have U.S. assistance programs in the form of aid and technical assistance contributed to this growth in sales? The consensus among economists is "Yes." Nations we've helped have increased their food purchases from us at a faster pace than their purchases from other sources. In addition, studies by the International Food Policy Research Institute (IFPRI) and others show that the developing countries with the fastest growth rates in food production are also the leaders in increasing their imports of food.

Research done at the University of Illinois directly supports the notion that strong agricultural growth in developing nations is accompanied by a higher level of imports. The 10 developing countries with the fastest growth in agricultural production in the 1970's increased their food imports by an average of 68 percent. By contrast, the 10 developing countries with the slowest growth rates raised their food imports by only 3 percent. So agricultural growth in the developing world should not be viewed as a threat to U.S. producers -- just the opposite is true. Their economic development and our market development go hand in hand. In fact, expanding markets in the developing world may very well prove to be the economic salvation of the American farmer in the years ahead.

Mr. Chairman, this completes my statement. I will be happy to answer any questions you or other members of the committee may have at this time.

OICD FISCAL YEAR 1986 BUDGET

Ms. WALLACE. Good morning, Mr. Chairman and members of the committee. I would like to take a few minutes to briefly summarize our budget and relate some highlights of OICD accomplishments.

Our fiscal year 1986 budget request totals $3.8 million, which is a $6.2 million reduction from fiscal year 1985. The most significant change is the elimination of $5 million for the Special Foreign Currency Research Program. This program funds overseas agricultural research through the use of excess foreign currencies held by the U.S. Treasury.

MIDDLE INCOME COUNTRY TRAINING PROGRAM

The other major change in our budget is a $1.5 million reduction for the Middle Income Country Training Program. Students already in the program will continue training, but no new participants will be selected.

Our other programs will continue at approximately their current levels. So far, the Middle Income Country Program, which I know you have an interest in, has had 102 participants, with half attending short-term courses and half engaged in longer academic programs. Nations taking part in fiscal year 1985 are Algeria, Iraq, the Ivory Coast, South Korea, Mexico, Turkey, Venezuela, and Yugoslavia. The Middle Income Country Program has helped these nations with their agricultural problems, fostered good will toward the United States, and helped promote sales of U.S. farm exports.

We have worked closely with FAS and their staff to maximize the positive impact of this program on sales of U.S. farm products. A number of participants have, for example, taken courses in grain storage and soybean processing.

SCIENTIFIC EXCHANGES AND RESEARCH

Last year, we sponsored 98 scientific exchanges with 24 countries through our exchange program. One practical goal of the exchanges is to save U.S. farmers money. For example, our farmers spend $50 million on insecticides each year to contain a caterpillar known as Heliothis, which hinders the production of cotton, soybeans, tobacco, corn, and other crops. Using the specimens collected in an exchange program with Australia, researchers at the U.S. Delta States Research Center and Mississippi State University are conducting crossbreeding trials to try to discover a sterile male trait for use as a biological control measure.

Concerns about the effects of acid rain on forests and agricultural production continue to grow, and we have been working with West Germany, the world leader in research on acid rain, to save money and bring back the findings of their scientists to our own researchers here in this country.

THE AFRICAN FOOD CRISIS

The African food crisis, as you know, worsened this year. As a result, the American people began to focus on the issue of agricultural development. Training and technical assistance, which are long-term investments in the people of Africa, are every bit as important as emergency food aid. In working with other agencies, OICD sent 214 scientists and technicians to conduct 40 assistance projects in 20 African countries last year.

Africans have also made up one-half of the 2,500 agriculturalists who take part in our AID and FAO-funded training programs each year. Our assistance to Africa and other developing countries is also a form of long-term market development for American farm exports. Research done at the University of Illinois shows that the 10 developing countries with the fastest growth in agricultural production in the 1970's increased their food imports an average of 68 percent, while the 10 developing countries with the slowest growth rates raised food imports by only 3 percent.

So economic development in the lesser developed countries and our market development go hand-in-hand. In fact, expanding markets in the developing world will be the economic salvation of the American farmer in the years ahead.

Mr. Chairman, I would be happy to answer any questions.

Senator COCHRAN. Thank you very much Dr. Wallace, for your statement.

NEED FOR SUPPLEMENTAL CCC FUNDING

Mr. Secretary, I know that the Commodity Credit Corporation has or will submit a supplemental budget request. At least that is what I understand. Do you plan to submit a supplemental request? Do you know how soon additional funds may be needed for that purpose?

Mr. AMSTUTZ. Mr. Chairman, we are continually examining that situation, and I think the best answer I can give you right now is that I am certainly confident we will be submitting a request. I can't specifically say when.

Senator COCHRAN. Can you tell us how much borrowing authority is available at the present time and how much will be needed to get you through the balance of this fiscal year?

Mr. AMSTUTZ. That is part of what is in this continuing study that we are doing. In other words, how much authority we will need for the remainder of the year.

SERVICE FEES

Senator COCHRAN. One thing that has come to my attention is that the user-fees concept is being extended, or is proposed to be extended, to the local ASCS office operations.

Can you tell me a little bit more about that?

Mr. AMSTUTZ. I think Mr. Rank can tell you about it.

Mr. RANK. Mr. Chairman, can you restate the question, please?

Senator COCHRAN. I understand that there is a plan to implement user fees in county offices and that these fees are to be implemented under existing authority. Do you know anything about that?

Mr. RANK. Yes, sir. We presently have user fees in some programs and we plan to issue regulations identifying new programs that we will apply user fees to in the near future.

We currently have user fees for farm-stored and warehouse-stored commodity loans, and sugar loans made through the processors. When a farmer asks for a measurement service on his land, we charge a very minimal fee to pay the actual costs of doing that, and we plan to implement fees in other areas where the farmer requests to have a service performed.

Fees will be charged when a farmer requests and receives a direct benefit, such as a loan. We are also going to propose a lien-search fee so that we can make a lien search on every loan we make. This will ensure that there is no lien against the loan and that we have first priority on the loan when we make it to the farmer.

Senator COCHRAN. Is the loan origination fee, which is being discussed in connection with the Farm Credit Program, the same kind of user fee that you are talking about?

Mr. RANK. No, no.

Senator COCHRAN. That is different?

Mr. RANK. Yes; that is completely different. This is where a farmer comes and asks for a payment, such as a deficiency or diversion payment. It costs so much to process that payment. We will apply a certain fee to recover the cost of processing the payment to him.

Senator COCHRAN. You don't have to search a title to make him a deficiency payment, do you?

Mr. RANK. No; in that instance we are talking about loans. We make a loan on a commodity to a farmer, and we make sure that the commodity has not been pledged under a previous loan to some other party.

We plan to expand that, Mr. Chairman, to make a lien search on every loan that is made, and to check every bin that the farmer asks to have a 100-percent loan made on. We find we are making a lot of loans today that exceed the value of the commodity stored in the bin. We feel it is only fair to protect the taxpayer and to operate our business as efficiently as a private business would if they were making the loan.

ASSESSMENT OF AGRICULTURAL TRADE OFFICES

Senator COCHRAN. Mr. Smith testified about the Foreign Agricultural Service's new marketing offices that have been set up. Could you give us an assessment as to the utility and value of these offices around the world? I know that there is authority for about 25 of these agricultural trade offices under the Agriculture Trade Act of 1978. Are these paying off? Is it worth what we are spending for them?

Are they helpful in promoting trade?

Mr. SMITH. Yes, Mr. Chairman, we think they are very helpful. We originally opened nine trade offices as pilot projects for the purpose of evaluating effectiveness. We put together a team, from both the private sector and the Government, to go out and evaluate them.

The results were almost unanimous. They were very effective. As a result of that, we opened some selected additional posts. The trade office concept allows the cooperators and the private sector to work together with our trade officer, to jointly focus on a particular market or particular commodity and do a much more efficient job of promoting.

So we think that under certain conditions, it can be a very effective tool, and we are very satisfied with it.

REACTION TO A BONUS EXPORT PROGRAM

Senator COCHRAN. There is a great deal of enthusiasm in the trade groups for a bonus-PIK-type arrangement whereby we will try to encourage the purchase of U.S.-grown agriculture commodities by offering a little extra to those foreign customers who buy U.S.-grown products.

What is your reaction to this export program? Is the administration planning to use this kind of program, or does it look with favor upon it?

Mr. SMITH. I will let Under Secretary Amstutz answer that question.

Mr. AMSTUTZ. Mr. Chairman, with so much publicity and concern about the negative U.S. trade balance, whenever the question of export enhancement comes up, a major question that always arises is, where does it stop?

All industries are being affected and hurt by this negative trade balance. If it was deemed proper just to use subsidies in the agricultural sector, another question arises: What about the nonprogram commodities? What about cattle and hogs, citrus, and the multitude of commodities that are not program commodities and that are not spoken of in the context of export bonus or export PIK?

So throughout all of this is a fairness question. Our general policy on export subsidies is that we are actively involved in negotiations and discussions around the world in a very serious attempt to induce other trading nations to agree that such a policy is harmful to the exporters.

We have no illusions about the difficulty of that task, but we, Mr. Chairman, are committed to make meaningful progress in that area.

So this raises a question. While we are involved in such a process, if we adopt programs that would be counter to what we are trying to convince others to do, it raises a question of how effective we can be as negotiators.

Having said that, let me reiterate what the Secretary of Agriculture has said on frequent occasions. That is, as he has addressed the question of other countries' providing export subsidies, we clearly have and will and do reserve our rights to use the tools at our disposal to counteract actions by those countries in specific instances where we feel it necessary to do so.

EFFORTS TO OVERCOME TRADE BARRIERS

Senator COCHRAN. We are worried continually about the trade barriers that are erected by some foreign countries which operate to limit the amount of agricultural products we can sell in those markets, or, in some cases, that prohibit us from selling in those markets.

Are we doing enough to explain the actions of our Government in trying to penetrate those markets and overcome some of the barriers to trade that have been used by others in the past?

Mr. AMSTUTZ. Mr. Chairman, I am usually one who says we are never doing enough, not all we can do, or all we should do. I can say that we are absolutely committed to these two major areas of international trade: First, this area of removing access barriers; and second, this area I alluded to in answering your previous question, of trade practices by trading nations, subsidization and so forth.

The President himself has frequently spoken of this problem of access barriers. The sectoral negotiations that are being conducted with Japan now in forest products, as well as telecommunications, electronics, and medical and pharmaceutical equipment, directly address these questions of access barriers.

I think a problem we have in this area, if I can philosophize for just a sentence or two, Mr. Chairman, and I am giving a personal opinion, one I have conviction on. For the last 40 years, when the United States has spoken about trade matters—market access and trade practices—a lack of followthrough on our part has induced others to believe that we weren't serious about it. The first challenge we have now is convincing the rest of the world that we really are serious, and, Mr. Chairman, we are serious.

As we finally get the attention of our trading partners around the world, when they believe we truly are serious, I am confident that we will make progress. These are not easy things to attack. They aren't easy barriers to tear down. But we believe that it is necessary, on a global basis, to make progress in this area, and again, the statements that the President has made, and statements that others at the highest levels of Government in this country and elsewhere have made, confirm that this is perceived to be an enormously important problem that must be addressed.

Senator COCHRAN. I have some other questions, but I am going to defer them and recognize Senator Burdick for any questions he might have of this panel.

Senator BURDICK. Thank you, Mr. Chairman.

CREDIT PROGRAM TERMINOLOGY

I have a few questions I would like to ask of Mr. Sims. I am not as familiar, as much as others, maybe, with language that has been used in Government, but in several places in your testimony you said that credit was available. You use the word "available." In one place, let me see if I can find it, that so much grain "is available for sale."

Does that mean it is sold or ready to be sold? What does the wording "available" mean?

Mr. SIMS. We do deal in jargons, and I appreciate the opportunity to try to clarify. When we say it is available, that means that administratively, we are authorized to announce up to $5 billion in credit guarantees for this year, for instance.

Senator BURDICK. That means that $5 billion is available for credit. That doesn't mean the credit has been used.

Mr. SIMS. No, sir, that means that we can announce credit guarantees when we find a country that is interested; we announce it by country and by commodity. After that, the sale is registered. Thus, the amount registered, the amount of sales actually made, and finally, the total amount of shipments made, will be different in any period of time.

RELATIONSHIP OF AVAILABLE CREDIT TO SALES

Senator BURDICK. Is there any way you could supply the committee with the fact of how any available credit has been reduced to reality and to actual sales; is that possible?

Mr. SIMS. Yes, sir, as a matter of fact, I have the three numbers in front of me now. For 1985, announcements of $4.647 billion have been issued. Of that amount, $1.220 billion has been registered, and $1.450 billion, approximately, has been shipped.

Now, some of the shipments were made against announcements and registrations that were made at the close of last fiscal year. So there is a spillover. If it is registered in the last part of September, we have extended the shipping period sometimes until the next quarter.

Senator BURDICK. Just a rough estimate, then, on this particular example you just gave us, you shipped about half of what you were authorized to ship?

Mr. SIMS. No.

Senator BURDICK. You had authority for?

Mr. SIMS. So far this year, no, it is even less than that.

Senator BURDICK. Less than that?

Mr. SIMS. Yes.

Mr. AMSTUTZ. Senator, the key number is the amount of credit that has been put in the hands of the buyers. It is the foreign countries that determine at what time they buy it, and when the shipments are affected.

Senator BURDICK. I think it would be helpful if the committee could know just how much we have sold, not how much we were authorized to sell, but just how much was sold.

I think that is very important.

Mr. SMITH. I think the best way to explain it, Senator, is that we have told foreign buyers that they can buy up to 4.6 billion dollars' worth of commodities. They are authorized to buy it. Most of it is wheat.

They have come back, up to now, and said, "Well, we only want to buy $1.2 billion."

Senator BURDICK. But reading this casually, you think you had sold the $4.6 billion.

Mr. SMITH. No.

Mr. AMSTUTZ. They have the buying power to buy it from us, Senator.

Senator BURDICK. All right.

Mr. SMITH. They can buy it if they want to.

Senator BURDICK. OK. When you said, wheat, you touched a tender nerve. [Laughter.]

Mr. SIMS. Yes; that is our major commodity.

Senator BURDICK. I wish they were actual sales.

Mr. SIMS. We agree.

ASCS EMPLOYMENT LEVELS

Senator BURDICK. Now I have an easy one for anybody who wants to answer it. You proposed significant savings in the ASCS Salaries and Expenses Account. Do you propose any reduction in numbers of staff in Washington, in the field, or in county offices in ASCS? Do you have adequate current staffing levels in the county offices to handle the current workload, and do you allow the use of temporary employees during the heavy workload periods?

It is a three-part question for anybody who wants to answer it.

Mr. RANK. Senator, I will certainly try to answer that. In our ACP program proposal for fiscal year 1986, we are talking about a reduction of 100 Federal employees from the fiscal year 1985 level, which would include employees in Washington and State offices. There would also be a reduction of about 650 county office employees nationwide related to the termination of conservation programs.

In fiscal year 1986, if our budget is approved as we submitted it, a total reduction of 750 staff-years would relate to conservation. We have certain carryover activity in the conservation programs, such as ACP long-term agreements, Water Bank, and Rural Clean Water Program agreements that would be phased out over a period of time.

Temporary employees in the county offices are employed at the discretion of the State Executive and the County Executive Director when needed.

State and local levels have full authority to hire temporary employees, based on the workload in a county office, whenever additional employees are needed.

Senator BURDICK. In other words, there will be 100 less employees in the State organizations?

Mr. RANK. The 100 staff-years include about 20 Federal employees in our Washington offices and about 80 State office employees. These 100 Federal staff-years relate to the conservation reduction. Also a reduction of about 650 employees in the county offices in fiscal year 1986 are associated with our request to terminate ACP.

Senator BURDICK. How are they sprinkled around the various States? Do you have any idea?

Mr. RANK. It would depend on which State is more involved in conservation. We have not identified that, but have just looked at the total workload. We will, in time, certainly have that available, and if you wish, could supply that information.

Senator BURDICK. As soon as you find out, I would like to know.

Mr. RANK. As soon as you let us know what our budget is, we will send it back to you.

Senator BURDICK. You know more about that than I do. [Laughter.]

ASCS AUTOMATION EFFORTS

Mr. RANK. I hope I answered all three phases; one dealt with temporary employees. Oh, yes. I think one of the things, Senator, that is very important, which we are putting into effect, is our computer system. We have been operating in a horse-and-buggy stage. I think the PIK Program really identified the massive amount of paperwork that we are involved with. We have been on a test program now for 5 years to identify how we might procure and install the latest state-of-the-art computers. We have had a test program going on in Kansas City and in selected county offices. This is the fourth year. We have identified three States to serve as pilot projects for full implementation of our automated system: California, Kansas, and South Carolina. They are operable today. These county offices and State offices are fully automated.

In a month or two, we are going to evaluate how they are working. After the next test phase, we plan to fully implement in every county office in every State, which will save paperwork, increase efficiency, improve the work environment, and enable us to serve farmers better.

We will accomplish full implementation by July 1, 1986.

Senator BURDICK. I don't have any more questions, Mr. Chairman.

Senator COCHRAN. Thank you, Senator.

EFFECTIVENESS OF EXPORT PROMOTION EFFORTS

In connection with the trade effort, I worry that we are seeing tremendous increases in production in some areas of the world. The Secretary referred to this in his statement. In the case, for instance, of Thailand's rice production, we have just seen huge increases of production, and then a dumping of that product in markets overseas, some of which have been our markets. We have used our money—cooperative funds and Government export credit funds—to develop markets, like Nigeria, for instance. All of a sudden, Thailand has that market. We are out of that market.

China is beginning to export cotton, whereas a few years ago, they were buying cotton from us. We were increasing our efforts through our cooperative programs. I remember leading a delegation to China, and we were helping build a flour mill and doing other things to increase our sales of wheat over there. Now, they are into the business of growing wheat, as I understand it.

We may not get to take advantage of those expenditures. I guess I am expressing those thoughts with a sense of frustration, because I fear that we are not making enough progress in our export promotion effort.

It is not really paying off in some instances because of actions of foreign governments over which we have no control.

This is hurting our American farmers, but if you try explaining it to a farmer, you lose his attention after about the first sentence. It is not easy to understand how that translates into lower commodity prices and all the other problems that our farmers have.

What is your reaction to that? What do we do?

Mr. AMSTUTZ. Mr. Chairman, first let me say I understand your frustration; I share it, and I understand from first-hand experience the difficulty of explaining it to a farmer. There are so many facets to it, there is a danger of oversimplifying an answer, and that is not my intent right here.

CAUSES OF DECLINING EXPORTS

But let me try to hit some of what I think are very important highlights of this. First, a symptom of our frustration and of the problem—and it is important to discuss that symptom, because in it, we can see some of the solution—is that world markets are simply not growing at the rate they were in the last half of the previous decade. From 1975 through 1981, or so, we had this marvelous annual increase in overseas markets, total markets. And suddenly, that tapered down.

Why? Why did it taper down? Really, four reasons, but most of those relate to buying power. The principal reason we had that marvelous runup in world trade was that the Third World had money, and they spent it on farm products, on fiber.

Where did they get the money? They got some of it from OPEC, from petro dollars. The oil boom was good for agricultural exports.

They got some of it from cheap, plentiful credit, and they got some of it from a very favorable U.S. dollar exchange rate vis-a-vis the other currencies, which was in effect.

How do we get the world back to an increasing demand phase that we were enjoying in the last half of the decade? The answer, Mr. Chairman, to us, is simple: buying power. That is what the world needs. So this question of assisting in the development of all economies, particularly Third World economies, is enormously important from the standpoint of the selfish interests of our agriculture to create growing markets.

Second, we have to be competitive. I think for many years, some of us in agriculture——

IMPROVING AGRICULTURAL COMPETITIVENESS

Senator COCHRAN. Let me stop you right there. When you say we have to be competitive, I wonder whether we really understand how competitive we have to get in order to overcome the problems that I cited. Take the case of Thailand, and their production of rice.

They are selling, I am told, some of this rice for $5 per hundredweight. We have support prices at $8 and something per hundredweight.

If we are to get competitive, that means we are going to have to be able to compete with them on this price. If we priced our rice at $5, somebody has to sustain that differential. Is it going to be the rice producer? Is it going to be the trader? Is it going to be the U.S. Government?

How do you propose that we get competitive? If the administration's bill is taken as an indication, it means that the farmer/trader has to make up the difference. The Government is not going to do it.

Mr. AMSTUTZ. Our farm bill is saying really two things, Mr. Chairman. It is saying that the loan levels should be at market clearing levels.

Senator COCHRAN. That would be about $4 for rice or so.

Mr. AMSTUTZ. It is saying also that the farmer should have total freedom to use his land resources as he sees fit. I think that aspect of what we are saying in our farm bill is frequently lost in the debate as people focus on absolute loan levels.

So we are not asking our farmers to retire acreage, and we are not specifying any land usage concepts. We are allowing the free forces of productivity realities to come into play, and the free choice of farmers in crop selection.

Senator COCHRAN. Well, going back to the previous panel, I was talking about putting land to its best use, growing pine trees in some instances, or devoting land to wood timber growth. The farmer has the freedom to plant trees instead of rice. It is kind of hard to get from here to there, though, when you have dikes, and you have spent all the money and put all this investment in place.

It is a serious problem, and there is no easy answer to it. I know that you don't have the answer of what to do with the $5 rice that is being sold by Thailand, or the wheat prices that we are seeing in other areas.

It is obvious that our Government really doesn't have an answer to the thing, and there is not much encouragement that I have heard from you or anybody else as to what we can tell the American farmer about future growth of exports. It looks like we are on a downhill slope in exports.

FUTURE EXPORT PROJECTIONS

Exports are declining. I understand that you are refiguring export sales for this year and estimates for next year every 2 or 3 weeks, and the number gets smaller every time you refigure it; is that right?

Mr. AMSTUTZ. The last figure we gave was the one from Dick Smith, $34 billion.

Senator COCHRAN. That is down from the projected $38 billion of a few months ago, isn't that correct?

Mr. AMSTUTZ. That is right.

Senator COCHRAN. So things are not getting better in terms of projections and estimates for the future; things are getting worse.

Mr. AMSTUTZ. In the short term, that is right. That is why I started responding to your question on the demand side. What does it take to turn that demand line around? What it really takes is real buying power. Senator Burdick's question, why, when we have $4.6 billion of credit out there, which is buying power in the hands of countries, have they used such a small percentage of that?

One reason does relate to price competitiveness, there is no question about that. But another question relates to a reluctance around the world to get deeper into debt. Debt service is a problem for our farmers, and it is a problem for many foreign countries.

So there is a reluctance now that did not exist several years ago to get deeper into debt. That is why I say for the long term, the real answer is the creation of real buying power and real economic growth around the world.

That has to be the answer. Now, Mr. Chairman, I am well aware of the fact that in the long range, we are all dead and it doesn't help the short term. But for the long range, one has to be optimistic about the demand for food and fiber products. I understand, I think, as well as anyone in this country, the impact of current Chinese exports of cotton and soybeans and corn. I am absolutely confident, as the economy of China continues to grow, that so, too, will consumer demand. I am confident that consumer demand will be met, but I am doubtful that China can continue to be self-sufficient as demand increases.

I still think that is going to be a long-term market for us.

Senator COCHRAN. I know that we have export credit sales programs, and I know the general sales manager touched on that. These are important. I know my farm bill is going to have an export promotion title, and I am sure whatever farm bill is agreed upon will have one. Let me ask a couple of questions about the export credits.

FISCAL YEAR 1986 EXPORT CREDIT BUDGET

Do you feel the proposed budget that you are presenting this morning has enough emphasis in this export promotion area in terms of export credits?

Mr. SIMS. Yes, sir, with the possibile exception of Public Law 480. Depending on the weather in Africa and other parts of the world, there is a possibility that there may be a need for supplemental appropriations, especially under title II. But we do have available the wheat reserve, if the President approves it. Also, we can transfer a certain amount of funds from title I to title II.

But as we look at it at this time, we think the budgetary authority is adequate.

Senator COCHRAN. Dr. Wallace, before I move to OICD, let me just say that I do have some other questions of the General Sales Manager, specifically, which I will submit in writing and ask that you respond to those for me. I would appreciate that.

[CLERK'S NOTE.—All questions and answers submitted in writing appear at the conclusion of today's testimony.]

OICD EXCHANGE PROGRAM

Dr. Wallace, I appreciate your mentioning the work that your agency is doing in the area of exchange work and training. I was fascinated by the figure you gave us about the increase in imports of countries which increased their own agriculture production because of new technology or new educational successes.

I think that is a piece of information that ought to be sent out around the countryside, because we read what critics, other Senators, and sometimes, Members of Congress, say, "Why put money in these training programs for persons from overseas when we have problems of our own here at home on the farm?"

How do you answer that? I think that you have given us one indication of how we answer that criticism, in those statistics that you gave us. Is it important to our domestic farm well-being for us to continue programs of that kind, such as the Middle Income Training Program?

Dr. WALLACE. Yes; it is very important. As a matter of fact, the Middle Income Country Training Program has produced really very good results just in the first year. We did have a major U.S. cooperative train some of the students. The cooperative benefited from the program, because when the students went back to their country, having had the opportunity to know more about that particular business, they purchased a good deal from that cooperative. So we have seen U.S. sales arising out of this program.

We have run into ministers of agriculture all over the world who have been trained through our programs, and in our universities. We have run into agricultural counselors from other nations who have been trained through our programs, and who are our friends, and they become our trading partners.

One of the problems we had with the Middle Income Country Program was that Korea was very upset that they didn't have the whole program, because they have so many people they want to send here. They want to learn more about storage; they want to learn more about technology and processing our products, for instance. They were unhappy that the program was so small.

We have not allowed the South Koreans to have more than their fair share, and we have added, for this year, three other countries: Algeria, Iraq, and Yugoslavia—countries FAS is focusing on to increase U.S. farm exports.

We have found that in using the program, some countries are willing to accept our small scholarships as seed money so that it can be extended. Some of the countries have said that they would be willing to pay transportation, for example, if we could increase the number of scholarships. So we see this program as an opportunity to provide more training for more people.

Poor people cannot purchase from us. People who are starving cannot purchase from us, and so economic development has to be an important part of market development. It has to be the other side of the coin.

We can look in our own country; as people have gained more, have earned more, they have improved their diets. They have added different foods to their diets. Our own country is a very good example.

Senator COCHRAN. I appreciate your being able to advise us on the status of the program and the success of it. I know there is no request for funding for the third year of the program, but we will discuss it in the committee and see if we can find a way to keep that program going for one more year. I would like to see it continued, if we can.

I have other questions, too, on that and other subjects, which I will submit in writing, and ask that you respond to them.

Senator Burdick, I don't have any other questions, but I would be happy to recognize you for any that you have before we conclude the hearing.

EXPORT SALES

Senator BURDICK. I want to give an observation, which may be a little bit pessimistic. I have just returned from the International Parliamentary Union, which is held in Togo in Africa, and we have mingled with all the delegates from all over the world, and you gentlemen mentioned a possible increase in exports to China. We have to think of a policy they have recently adopted: population control, a very strong, rigorous, almost inhumane program. They are going to do something about their burgeoning population. We found out that Western Europe is self sufficient in food, and to my great surprise, I found the Togolese were self sufficient in food.

I see they are listed here as a recipient country of our exports. So we are just laying down the gauntlet. We are going to have to sharpen our techniques to get sales of our food products abroad, because we are really running into some competition.

SUBMITTED QUESTIONS

Senator COCHRAN. Thank you very much, Senator. Thank you, Mr. Secretary and all of the witnesses who appeared here this morning. We will submit the written questions to the panel, and they will be inserted at this point in the record.

[The following questions were not asked at the hearing but were submitted for response for the record:]

AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE

QUESTIONS SUBMITTED BY SENATOR COCHRAN

DAIRY PRODUCTS

Question: In a Government Accounting Office (GAO) report issued in May 1982, entitled Savings Are Possible Through Better Management of Government-Owned Dairy Products, GAO concluded that USDA would realize estimated annual savings of up to $1.4 million if it purchased its requirements for 1-pound packages of butter directly from suppliers instead of purchasing in bulk form and paying additional transportation and processing costs. Since that time, we understand that USDA has purchased some of its dairy products in ready-to-use form. How much (by type of product) has ASCS purchased in ready-to-use vs. bulk form in 1984?

Answer: The following table shows the total amount and type of dairy products purchased by CCC in calendar year 1984. Ready-to-use packages are purchased in 1- to 6- pound sizes.

Total Dairy Product Purchases
Calendar Year 1984

Butter	(million pounds)
Bulk (64 & 68 lb. containers)	169.4
Print (1-lb.)	36.4
Total	205.8
Cheese	
Blocks (40- & 60-lb.)	70.1
Barrels (500-lb.)	346.7
Process (2- & 5-lb. loaves)	28.0
Mozzarella (5-, 6-, 20- & 22-lb. loaves)	26.8
Cheddar (5-lb. loaves)	6.7
Total	478.3
Nonfat Dry Milk	
Nonfortified (50-lb. bags)	228.2
Fortified (50-lb bags)	422.0
Instant (4 lb. & 25.6-oz. packages)	26.9
Total	677.1

Question: How does ASCS decide on the quantity of products to be purchased in ready-to-use form vs. bulk?

Answer: ASCS essentially allows the dairy industry to determine what form its dairy purchases will be in by purchasing all offers of butter, cheese, and nonfat dry milk in both bulk and ready-to-use form, if the products offered meet certain Federal grade standards. This policy is primarily in recognition of the fact that the date and form of the final disposition of CCC dairy products cannot be anticipated in advance. By accepting dairy commodities in both forms, ASCS can fulfill its immediate pre-packaged requirements by using its ready-to-use inventories, and use its bulk dairy inventories for rotating inventories, for meeting its bulk form requirements, or for processing and/or repackaging into consumer-size packages as needs arise.

Question: If USDA had a more systematic method, could this result in purchasing more products in ready-to-use form and therefore additional savings?

Answer: Buying dairy products in consumer-size packages is less expensive than buying them in bulk form and having them converted because of savings in handling, transportation and packaging. However, the dairy industry does not have the packaging capacity to sell all of its surplus products to ASCS in ready-to-use form. Furthermore, such purchases would reduce ASCS' flexibility in inventory use and management, since the shelf life of these dairy products is lower than for bulk commodities. For example, the shelf life of 1-pound butter prints is about 1 to 2 years, while bulk butter can be stored for 3 to 4 years.

ASCS currently has a large inventory of dairy products in bulk form, enough to supply domestic program needs for at least another year. As needs arise, we will augment the supplies of fresh ready-to-use dairy products by converting our bulk products to consumer-size products. As more of our bulk inventory is utilized, we will be in a better position to purchase additional dairy products in consumer-size packages.

Question: ASCS losses are increasing due to deteriorated and/or off-condition products which have to be sold for restricted uses. The bulk of losses is in nonfat dry milk. Further, the Agricultural Marketing Service has fallen behind in reinspecting its stored commodities and, therefore, the extent of spoilage in USDA's dairy inventory is not fully known. What is the agency's current best estimate of the extent of spoilage at the national level based on the reinspections that have been made? How much of the inventory has been reinspected at least once?

Answer: Inventory losses of all dairy products due to deterioration during fiscal year 1984 totaled 1.4 million pounds. These losses represent only 0.05 percent of CCC's total inventory as of October 1, 1983. When surplus dairy products deteriorate, USDA advertises the products for sale on a competitive basis and recovers, on average, nearly three-fourths of their original purchase cost.

CCC requests initial reinspections of the dairy products after they are held in CCC inventory for 6 months. Subsequent to the reinspection request, products are inspected during the next 3 months and the results recorded. The following table shows the quantities of products that were produced prior to June 1, 1984, and the corresponding quantities that have been reinspected.

	Inventory produced prior to June 1, 1984	Inventory with at least one reinspection	Percent Reinspected
	--(million pounds)--		
Butter	97.4	28.5	29.3%
Cheese	396.2	228.9	57.8%
Nonfat Dry Milk	788.8	627.7	79.6%

Although some of the dairy products have not been reinspected, all dairy products are inspected at the time of final disposition to ensure that they meet Federal grade standards.

Question: With the bulk of losses occurring in nonfat dry milk, what can be done in this area to reduce the losses?

Answer: Inventory losses of nonfat dry milk due to spoilage are, in fact, minimal. Nonfat dry milk--NDM--which is aged or standard grade because of moisture, but remains fit for human consumption, is sold for restricted use as animal feed. In fiscal year 1984, 6 percent of the nonfat dry milk inventory was sold for restricted use as animal feed. The prices received from these sales exceeded more than half of the purchase cost and these sales proceeds are higher than from any alternative sales outlet for NDM.

DONATIONS OF CCC COMMODITIES

Question: The Department, over the past few years, has been distributing surplus commodities, especially dairy products, to low-income people through various local agencies. For the past 3 years, we have appropriated funds to assist in the storage and distribution of these products. Do you plan to continue donating these products?

Answer: The Department continually reviews the monthly quantities of commodities being donated to low income people and periodically adjusts donation levels based on the availability of the products. We plan to continue donating as availability permits.

Question: The Administration has not requested funds for storage and distribution for next year. Will this affect the volume of surplus commodities you donate?

Answer: We do not expect that the volume of surplus commodities donated will be affected. It is anticipated that the State and local agencies will finance the storage and distribution arrangements.

COMMODITY CREDIT CORPORATION SUPPLEMENTAL

Question: I understand that the cash flow of the Commodity Credit Corporation (CCC) account is in trouble. What is the current situation? How much borrowing authority is available at the present time? How much will be needed to get you through this fiscal year?

Answer: CCC's available borrowing authority as of April 2 is $3.3 billion. Based on our cash flow projections and large April disbursements for deficiency payments, this level of borrowing authority will not be sufficient to finance fiscal year 1985 operations and maintain a reasonable operating margin. Given the historical outlay volatility of this account, we estimate that $3 billion in supplemental funding would provide CCC a reasonable operating margin and avoid an emergency situation later in the year.

Question: Do you plan to submit a supplemental request? How soon will additional funds be needed?

Answer: We have consulted with OMB on this matter and are in the process of requesting that OMB consider a budget supplemental for restoration of $3.0 billion in anticipated fiscal year 1985 losses. Available borrowing authority is projected at less than $1 billion by the end of May, which is significantly less than the operating margin we would like to have.

SERVICE FEES

Question: Your statement indicates you plan to implement user fees in the county offices and that these fees can be implemented with existing authority. On what kind of services will you be charging a fee and how much will that fee be?

Answer: We propose charging service fees to recover county office personnel costs that relate to direct benefits received by producers. These benefits include wool and mohair incentive program payments, deficiency payments, diversion payments, peanut and tobacco marketing cards, proven yields, grain reserve farm-stored and warehouse-stored loans, other commodity loans, and measurement services to determine quantity and quality of commodities and structures.

Costs relating to administrative and program activity not directly benefiting a producer will not be recovered; for example, no fees will be charged for program signup, general administration costs, ordinary yield and base establishment, community and county committee elections, referenda, aerial photography work, or office overhead. Furthermore, we will exempt conservation program payments, which are made on a cost-share basis.

Our current proposed service fee schedule is provided for the record.

[The information follows:]

ASCS PROPOSED SERVICE FEE SCHEDULE

Service Fee Item	Current Fee	Proposed Fee
Farm-Stored Commodity Loans (except Sugar)	$10.00/loan, plus $1.00/bin over one in which loan collateral is stored	a/ $40.00/loan or one percent of total loan amount, whichever is smaller, but not less than $10.00/loan minimum fee
Warehouse-Stored Commodity Loans (except Cotton)	$6.00/loan, plus $1.00 for each warehouse receipt over one	b/ $25.00/loan or one percent of total loan amount, whichever is smaller, but not less than $6.00/loan minimum fee
Cotton Warehouse Loans prepared by County Office Personnel	$1.50/loan, plus $.25 for each bale of cotton loan collateral	b/ $8.75/loan, plus $1.25/bale or one percent of total loan amount, whichever is smaller, but not less than $10.00/loan minimum fee
Cotton Warehouse Loans prepared by Others	$1.50/loan, plus $.25 for each bale of cotton loan collateral	b/ $8.00/loan, plus $.60/bale or one percent of total loan amount, whichever is smaller, but not less than $6.00/loan minimum fee
Sugar Processor Loans	$10.00/loan	c/ $272.00/loan
Grain Reserve Farm-Stored Loans	none	d/ $62.00/loan or one percent of total loan amount, whichever is smaller, but not less than $15.00/loan minimum fee
Grain Reserve Warehouse-Stored Loans	none	$34.00/loan or one percent of total loan amount, whichever is smaller, but not less than $10.00/loan minimum fee
Wool and Mohair Payments	none	$12.50/check or three percent of producer's total gross payment/check issued, whichever is smaller, but not less than $3.00/check minimum fee
Deficiency Payments	none	$3.00/commodity reflected on advance and final payment checks
Diversion Payments	none	$4.00/commodity reflected on advance payment checks and $4.50/commodity reflected on final payment checks
Peanut Marketing Card	none	$5.50/card issued
Tobacco Marketing Card	none	$6.00/Flue-cured tobacco card issued and $5.00/card issued for all other tobacco varieties
Proven Yield	none	$9.00/proven yield per commodity for each year a yield is proven (wheat, cotton, rice and feed grains)

a/ In addition to these fees, locally determined charges will be assessed for measurement services, lien searches, and filing financing statements (lien filings).

b/ In addition to these fees, locally determined charges will be assessed for performing lien searches.

c/ In addition to these fees, locally determined charges will be assessed for performing lien searches and filing financing statements (lien filings).

d/ In addition to these fees, locally determined charges will be assessed for filing financing statement extensions.

NOTE: National estimates of these additional charges are $19 for measurement services, $7 for lien searches and $3 for filing financing statements (lien filings).

Question: Do you now charge any types of fees for such services?

Answer: Yes, we currently charge service fees for farm-stored and warehouse-stored regular commodity loans, sugar processor loans, and measurement services.

Question: When do you plan to implement user fees?

Answer: The new service fees are proposed to become effective upon Federal Register publication of the Notice of Final Determination identifying the rates. We anticipate that publication will take place about mid-July of this year.

CONSERVATION PROGRAMS

Question: You are proposing to eliminate the Agricultural Conservation Program, the Forestry Incentives Program, and the Water Bank Program. Is there any reason for this other than budget restraints and cutting the deficit?

Answer: Eliminating conservation cost-share programs will contribute to deficit reduction. In addition, we believe that Federal programs of financial assistance to individuals should be eliminated, especially in cases where economic incentives or existing non-federal institutions might play a more significant role in the absence of Federal participation. No doubt State and local governments will assume a greater role in working with private landowners to solve individual conservation problems. Conservation priorities, including technical assistance, soil survey information, and plant material development, will continue.

Question: The Emergency Conservation Program assists farmers in rehabilitating land damaged by natural disasters. Will ASCS personnel be equipped to carry out this program if they no longer have experience in cost-sharing conservation programs?

Answer: The FY 1986 Budget proposes elimination of the Emergency Conservation Program as well as other ASCS conservation programs. We therefore anticipate no further need for expertise in delivering the program once currently available funds are expended.

QUESTIONS SUBMITTED BY SENATOR MCCLURE

COUNTY OFFICES

Question: I am greatly concerned over the proposed closure of ASCS offices in the state of Idaho. I understand that this has been put on hold until after the 1985 farm legislation has passed but it still concerns me. If an office is closed and no provision is made for a part-time office some of my constituents will have to drive hundreds of miles further just to sign up for government programs. Can some provisions be made for part-time offices or mobile offices to avoid having farmers drive long distances?

Answer: Yes, the distances farmers must travel to reach ASCS county offices concern us also. At all times we strive for a county office structure that can effectively provide the necessary farm program services to producers. Currently, some ASCS personnel travel to various community locations, accepting program applications and answering questions at critical program times. While these special arrangements vary from county to county and State to State, we feel that their use does respond to critical needs when necessary. If a county office is closed in the future, we will continue to service the agricultural community in the best possible way by utilizing these and other methods whenever possible.

Question: How were the criteria determined for the study which has been put on hold?

Answer: Our first step was to select a cross-section of ASCS personnel to represent county, State and national levels -- including the National Association of ASCS County Office Employees -- on a seven-member County Office Structure Review Task Force.

Secondly, the Task Force met in early February to discuss all available elements and identify those which best typify the productivity, work volume, program operations, clientele and cost of county office operations nationwide. Numerous items were reviewed, and five elements -- workload, number of producers, number of farms in the county, average cost per workday, and county productivity index (CPI) -- were identified as the best measurable criteria with which to analyze county office operations.

Finally, approximately 1,000 county offices were selected for a more in-depth study. This study, using the five elements, will enable us to develop a structure of county offices that will provide necessary services to producers in the most efficient manner without adversely impacting farm program delivery.

Question: How much would the proposed savings be?

Answer: No savings estimates have been developed since we are uncertain at this time of any change that might occur to the current county office structure. Following the Task Force's evaluation and recommendations, proposed changes if needed will be developed and corresponding savings determined.

Question: In combining offices how will staffing be handled?

Answer: In combining offices, a limited reduction-in-force (RIF) may be necessary. In situations where RIF's are necessary, employees who are best qualified to perform the realigned or remaining work will be retained. Wherever possible, however, reassignments and reductions through attrition will be used instead of RIF's. In selecting County Executive Directors, County Committees from the combined counties will have equal voting rights.

Question: The Nez Perce County ASCS Office in Lewiston, Idaho, and the Asotin County Office in Clarkston, Washington, are discussing a merger. Do you support this and what are some of the problems you have identified?

Answer: This Administration supports good management at all levels, with emphasis on the State and county levels. ASCS supports an efficiency move when any resulting employment reduction is achieved through attrition whenever possible, when farm program delivery will not be adversely impacted, and when it is supported by the agricultural community served.

The proposed merger of the Asotin County Office into the Nez Perce County Office appears to be based on efficient use of Government funds and will be accomplished through attrition. We believe Idaho will benefit by it.

QUESTIONS SUBMITTED BY SENATOR BURDICK

CONSERVATION PROGRAMS

Question: As with the SCS, I am concerned about the elimination of conservation programs under ASCS. Your testimony indicates that farmers are going to be carrying conservation practices on their own--especially in the minimum tillage area. However, you do not mention those conservation practices--such as the construction of barriers, the digging of ditches, etc.--which would not have been accomplished without help from the Federal Government. The Agricultural Conservation Program, by definition, provides up to 75 percent of the cost of performing conservation practices that would not be carried out without ACP assistance. What is the nature and extent of the conservation practices that we will no longer have because of the elimination of ACP funding?

Answer: Eliminating ACP funding may reduce enduring practices for which the farmer receives little or no short-term economic benefits. Such practices include tree planting, permanent wildlife enhancement, critical area treatment, and structural practices for sediment retention and water quality.

Question: Do you expect any of these practices to continue?

Answer: We expect that farmers will continue a significant number of annual conservation practices, such as interim cover, conservation tillage, no-till, and pasture or range improvement. We also anticipate the continuation of certain enduring practices, such as terraces, irrigation water conservation, contour farming, and permanent seedings, which are economically advantageous to the producer over a longer period of time.

Question: What will be the incentive?

Answer: The primary incentive is that these practices provide economic returns to farmers who are traditionally good stewards of the soil. In addition, some States have funded cost-sharing programs that either supplement the Agricultural Conservation Program or concentrate on specific problems within the State. Both States and farmers recognize the need for a viable natural resource base for future generations, and, we believe, are willing to accept the responsibility for maintaining this base.

Question: What are the priorities with water bank funding--to finance existing contracts after 5 years, to reenter a contract after it expires after 10 years, or to obtain new contracts?

Answer: The first priority is to adjust payment rates of existing 5-year-old contracts to reflect current land and crop values. After considering the quality of available wetlands and their vulnerability to destruction, we then accept the most desirable wetlands, whether renewals or new contracts.

FOREIGN AGRICULTURAL SERVICE

QUESTIONS SUBMITTED BY SENATOR COCHRAN

TRADE BARRIER ELIMINATION

Question: To what extent do your successes match your challenges? How successful have you been in changing unfair trade practices as compared with challenges remaining?

Answer: We have had some successes, but not as many as we would like, because the solutions are often not within our direct control. We have four basic challenges: first, to persuade other countries not to impose new restrictions on U.S. agricultural exports; second, to persuade them to remove the restrictions they now have; third, to persuade them not to use export subsidies or other unfair export trade practices; and fourth, to protect U.S. producers from such practices when they are used.

We have succeeded so far in persuading the European Community not to restrict imports of soybeans and nongrain feed ingredients. For the time being, at least, the Europeans are no longer requesting consultations on this subject. Developed countries generally have refrained from adopting new restrictions. This situation could change dramatically if the United States adopts protectionist policies.

Our record in removing existing trade barriers is less satisfactory. Progress in Japan is significantly slower than it was a year ago when quotas on beef and citrus were increased following intensive negotiations. Despite the commitment to gradual liberalization, Korea has been only modestly responsive in substance to our product-specific interests. We are particularly interested in opening markets in other developing countries such as Taiwan and the ASEANS. Progress with many developing countries, however, depends primarily on their ability to continue their industrial development and overcome balance-of-payments difficulties. Again, open market policies in the United States and other developed countries are crucial to their effort.

The problem of export subsidies is exacerbated by the continuing high value of the dollar, which has made our goods over 50 percent more expensive in relation to foreign goods than they were in 198[illegible] This problem, of course, is not peculiar to agriculture While we can use credit and other policies to help U.S. agricultural exporters meet foreign competition, the most effective bargaining leverage we can have is a market oriented domestic farm program as proposed in the Agricultural Adjustment Act of 1985. This Act will hit the problem from both sides. It will remove an incentive both U.S. and foreign producers have to produce more than the market can absorb, and it will allow U.S. producers to compete at market levels instead of putting a floor on world prices below which we are unable to compete. The discouragement of production incentives and the assurance of U.S. competition will do more to persuade others to eliminate unfair trade practices that can be accomplished by any program of competitive subsidies or other export assistance by the United States. We were successful in negotiating a rice export restraint agreement with Taiwan, limiting their subsidized rice exports to levels substantially below those of recent years.

Finally, U.S. trade laws do afford some assistance for the protection of U.S. producers injured by subsidized imports from other countries. The Commerce Department and International Trade Commission, for example, have recently issued preliminary findings of injury to U.S. producers from Canadian subsidies on hogs and pork. If these findings are upheld, the final determination by these agencies should result in countervailing duties on these products.

Question: How useful is the data you collect through your research when industry pursues ITC or other remedies?

Answer: The data collected through our research and the efforts of our Agricultural Counselors and Attaches is crucial to our understanding of the impact of other government policies on U.S. industry and the consistency of those policies with international trading rules. When import relief is requested under Section 201 of the Trade Act, the International Trade Commission--ITC--makes an independent determination of whether the U.S. industry is being injured. If the finding is affirmative, however, the President makes his own judgment of the cost and benefits to the national interest of alternative forms of import relief. For this judgment, the President relies heavily on information gathered and research performed by the Department of Agriculture when agricultural products are involved. In the case of petitions for countervailing duties and antidumping duties, the finding of unfair practices is made by the Commerce Department and the determination of injury by the International Trade Commission without a subsequent Presidential review. Even in these cases, however, Agricultural Counselors and Attaches may contribute to information gathered by the Commerce Department in determining the existence and extent of the alleged practice. In the case of petitions under Section 301 of the Trade Act, which deals more generally with unfair trade practices, especially as they affect United States exports in other markets, our information and research is essential to the preparation of the government position for consultations with the other countries concerned and for bringing a case to the General Agreement on Tariffs and Trade. The difficulties we have had in reaching a successful conclusion to 301 cases do not stem primarily from poor data or poor research, but rather from ambiguous trading rules and especially the unwillingness of the parties to the dispute to accept an adverse finding.

Question: In the agency's explanatory notes you outline some strong recommendations from the Committee on Trade in Agriculture, which was established at the GATT 1982 Ministerial meeting. These recommendations call for negotiation of: one, commitments to bring all nontariff trade barriers under more effective GATT rules; and two, a prohibition, with exceptions, to the use of agricultural export subsidies. Agreement on these recommendations was to be tested at the November 1984 meeting of the GATT Contracting Parties. What happened at that meeting? Are we likely to see any benefits from these recommendations?

Answer: The GATT Contracting Parties adopted the recommendations, as indicated, with one significant addition. In the case of agricultural export subsidies, it was agreed to elaborate not only a rule to prohibit agricultural export subsidies with exceptions, but also, as a second possibility, to elaborate improvements in the application of existing rules. The Committee held its first meeting under this mandate in February 1985 to discuss whether there are one or more approaches which can accommodate these recommendations. There remains a wide divergence of views as to what is possible and where to begin. The United States urged moving as rapidly as possible to dismantle all trade barriers and eliminate all export assistance. On the basis of these discussions the GATT Secretariat is now drafting a detailed assessment of the situation and suggestions for further work. Real progress, however, is likely to depend on outside factors, of which the most important is the willingness of the United States to adopt market-oriented farm legislation. If the Congress does not adopt such legislation or if other countries truly believe they can adjust to it without making significant steps toward trade liberalization and the removal of export subsidies, then the United States will need to consider additional steps to secure the benefits desired.

FUTURE TRADE PROSPECTS

Question: With today's production, and the efforts to move toward a more market oriented agriculture, international trade is and will continue to be of great importance. What needs to be done to expand and stabilize our international markets? What would be some of the crucial factors, in your opinion, and how would you rank their importance?

Answer: It is essential that the United States get in tune with the world market. This means that prices must be allowed to fall in line with the world demand situation in importing countries and that the United States must become competitive with other exporters. Current farm programs have not permitted these adjustments to take place. Flexible support levels would permit the United States to adjust to both world supply and demand realities.

Both of these adjustments are equally important, as the United States stands to gain about as much potential growth from increased world demand as it does from dampening competition. Potential gains that would result from other nonprice oriented actions would be small in comparison.

Question: The private sector is playing a large role in market development through your cooperator program. Some of your other activities, such as the Agricultural Information and Marketing Service--AIMS--effort, are providing assistance to the private sector but leaving much of the actual market development work to them. How much is the private sector doing to expand exports? How do their efforts match your programs?

Answer: As you know, the authorizing legislation for our programs requires that to the extent possible we work with U.S. nonprofit trade associations. Within that realm the private sector is very active and contributes a larger share of the export program resources than FAS does.

Question: To what extent do your programs and activities of the private sector complement each other? To what extent is this a coordinated effort?

Answer: Aside from the cooperator programs it is difficult to assess in quantitative terms the extent of private sector efforts. We do know that, in spite of the difficulties associated with the current strength of our currency, there continues to be an increase in the demand for the services that we provide through AIMS, our trade shows, our label clearance program, our export incentive programs, and at our Agricultural Trade Offices--ATOs.

Question: What do you see as the future division of responsibility between FAS and the private sector in regard to market development?

Answer: The services and programs we make available to the private sector are complementary to their efforts to increase sales. We do a number of things to enhance their market opportunities, but we leave the selling to private enterprise. We see FAS' role as unchanging in this regard. We plan to continue to act as a catalyst, help facilitate, identify market opportunities, help promote, work to reduce trade barriers, and help to reduce risk.

EXPORT INCENTIVE PROGRAM

Question: Your "Status of Program" discussions refer to initiation of an Export Incentive Program for high-value and value-added products. The purpose is to generate wider participation in Foreign Agricultural Service export expansion programs for these products. What have you done under this initiative so far?

Answer: The program provides for reimbursement of up to fifty percent of a contracting company's overseas product promotion expenses, such as advertising, market research, point-of-sale and trade fair participation promotion expense, etc. Reimbursement is made for successful completion of the contract which has a pre-set maximum dollar obligation. The average contract amount is $11,700.

Twenty-two companies nationwide are participating under contracts with the four Regional FAS Cooperators of State Departments of Agriculture, acting as the contractors and activity administrators.

Question: Can any benefits be identified yet?

Answer: Fourteen of the companies have been under contract from three to ten months. Of this number, ten have reported various successes in their market research, in-store promotions, and media advertising campaigns, and in some instances, serious sale negotiations are in progress. Six companies have participated in overseas trade shows. Signed agency agreements, have been forthcoming, with initial contracts signed by five companies with sales totaling $380,000, plus two potential sales in excess of $1 million.

The primary objective, to find a way to interest U.S. companies in exporting, appears to have been accomplished.

Question: What percentage of your market development budget is devoted to promotion of high-value and value-added products?

Answer: Of the total market development budget, $39,127,874 have been allocated to approved marketing plans for the current year. Of this amount, fifty-five percent is devoted to the promotion of high-value and value-added products. Broken down further, $34,936,739 are currently authorized for our cooperator program, of which fifty-four percent is allocated to high-value and value-added products. All of the remaining $4,191,135 is allocated to Country Project Statements that concentrate on the export promotion of high-value and value-added products.

USSR

Question: In 1984, the USSR purchased some 15 million tons of grain from the U.S., the highest level of Soviet purchases of U.S. grain since 1978-1979. What do you project as far as future purchases by the Soviets?

Answer: The level of future Soviet grain imports will depend on their policies toward consumer goods and their success in increasing domestic grain production. The Soviet Union is currently pushing intensive crop technology which they hope will increase production and lessen their dependence on imports. This is much of the same technology that U.S. producers have utilized for years and which has contributed to our current abundance. However, because of climatic and other factors, the expansion potential in the USSR seems somewhat limited. Therefore, we should not rule out the possibility of some continued long-term growth in imports, keeping in mind that the Soviets themselves will probably be trying to gradually reduce imports in the years ahead. The future level of Soviet Union imports may depend, in addition to their own supply situation, on their view of the United States as a dependable supplier, on our new farm programs, and on the competitiveness of grain on the world market from the viewpoint of an importing country.

USER FEES FOR TRADE LEADS

Question: A number of USDA agencies have proposed significant increases in implementation of user fees. You project only a minor increase for fees for Agricultural Information and Marketing Service trade leads. Do you feel you have exhausted all possibilities for instituting user fees?

Answer: The Foreign Agricultural Service has complied with the Office of the Inspector General's recommendation to immediately recover, as nearly as practicable, all costs directly attributed to the trade leads program. This development is possible because FAS recently increased its user fees by 50 percent which, along with an expanding subscriber base, will enable the program to generate the additional revenue to overcome any operating deficit. If these recent price increases prove insufficient to recover all costs of the program, further price increases will be considered.

Question: What percentage of the AIMS program is funded by user fees? Do you expect this to increase?

Answer: Annual receipts resulting from the Agricultural Information and Marketing Services operations are estimated to reach $150,000 during FY 1985 and reach $175,000 to $200,000 by the end of FY 1986. Direct program costs are estimated to remain fairly consistent at about $175,000 per year. Therefore, AIMS expects to be 85 percent funded by user fees in FY 1985 and 100 percent funded in FY 1986.

The estimate of receipts includes a very substantial increase of 900 trade lead subscribers since April 1984--from 300 to the present 1,200. This figure is projected to grow to 1,800 by the end of FY 1985. Another 10 percent expansion in subscribers in 1986 should bring total subscribers to 2,000. This increase is the result of intensive promotional efforts undertaken by AIMS since April 1984 to enhance its services and make the export community aware of the program and the benefits it offers.

AGRICULTURAL TRADE OFFICES (ATOs)

Question: You provide support to some 60 permanently-staffed overseas offices of the private trade and producer associations. To what extent might this be supporting work already being done in the ATOs? Are any of these in countries where you have ATOs?

Answer: The work being done by the private producer organizations--cooperators--does not duplicate the efforts of our ATOs although it is our intention that their function be complementary. Because of staffing limitations, ATOs are typically operated with one American and two or three local employees. As such, they concentrate primarily on the many processed products which are not covered by cooperators. To the extent possible, given space limitations, cooperator offices are located within the ATO facilities. There are twenty-two cooperator offices located with our ATOs in seven countries.

Question: How were sites for the Agricultural Trade Offices selected? What criteria were used?

Answer: Selection of sites for ATOs was based on a two-stage analysis. The first step identified the priority market areas warranting the intensive market development effort Agricultural Trade Offices are intended to provide. Consideration was based on the following criteria: current market activity in the area; U.S. market share, market potential, and economic trends in the area; rate of growth of total agricultural imports versus U.S. exports to the area; importance of the trade area relative to the world market and U.S. export trade in particular; competitor presence and practices, and the need to support cooperator efforts.

Having identified the trade areas to be serviced, FAS then selected the actual location of the Agricultural Trade Offices within the area based on relative cost and availability of office space, and qualified local personnel; adequacy of travel, communications and banking facilities; availability of Embassy administrative support; and proximity and feasibility of co-locating cooperator foreign offices.

COOPERATOR PROGRAM

Question: You have been using P.L. 480-generated funds to finance overseas market promotion activities for U.S. farm commodities, working closely with private trade and producer associations,--i.e., the U.S. Cooperators. To what extent do funds available from P.L. 480 sales match areas with the greatest market development potential? Do you find that dependence on P.L. 480-generated foreign currencies in any way prevents you from having the level of funding or geographic flexibility that would lead to the most effective market development work?

Answer: For many years, five percent of P.L. 480 generated foreign currencies were set aside for overseas market development activities. Beginning in 1972, however, P.L. 480 agreements were written requiring repayment in U.S. dollars or in foreign currency convertible to dollars. Since that time, FAS has been using its annual dollar appropriation to "purchase" the necessary foreign currencies to operate the overseas market development program.

Question: You have signed project agreements with two new cooperators, bringing the total to 49. What determines which interest groups participate in your program?

Answer: The program is available to any commodity group provided that an agreement can be expected to result in expansion or maintenance of overseas markets for U.S. agricultural products. The Foreign Agricultural Service's acceptance of a proposed agreement is based on certain criteria. I will provide for the record a list of that criteria.

(The information follows.)

- Probable success in maintaining or increasing consumption and imports of U.S. agricultural commodities.
- Long-range contribution to U.S. agricultural exports.
- The importance of exports of the commodities involved to U.S. agriculture and the U.S. balance of payments.
- The extent to which the project is in harmony with U.S. foreign policy.
- Ability of the cooperator to provide a competent experienced staff and other resources to assure adequate development, supervision, and execution of project activities.
- Extent to which the cooperator represents U.S. agricultural commodity interests.
- Willingness and ability of private organizations to back up promotional activities with aggressive selling and adequate supplies of commodities of the quality desired by foreign buyers.
- Competition in the market.
- Cultural, political, and economic obstacles which restrict imports of U.S. agricultural commodities into the markets.

OFFICE OF THE GENERAL SALES MANAGER

QUESTIONS SUBMITTED BY SENATOR COCHRAN

P.L. 480 ACTIVITIES

Question: P.L. 480 has proven to be an effective market development tool in the past, with several countries making the transition from aid recipient to trading partners. What is the situation today as far as aid countries moving toward becoming purchasers?

Answer: The situation is relatively static today as large external debt, sizeable debt service requirements, and weak export earnings have contributed to poor economic conditions in many middle and higher income developing countries. In addition, the drought in much of Africa has essentially halted economic growth in that region.

Question: What is the role of these countries in our export totals?

Answer: The amounts of U.S. commodities purchased by aid graduate countries have been significant in recent years. For example, recent aid graduates include Chile, Brazil, Colombia, Korea, and the Philippines. In calendar year 1984, U.S. exports to these countries totaled approximately $2.84 billion, or 7 percent of total U.S. agricultural exports.

Question: Are these countries maintaining their purchase levels once they make the shift, or do they come and go?

Answer: In most cases, P.L. 480 graduate countries continue to purchase U.S. exports on a cash or commercial credit basis. The provisions of P.L. 480 require programming of at least 75 percent of Title I/III funds to countries with low per capita income levels--below $805 per capita GNP in fiscal year 1984 and $790 in fiscal 1985. Once countries move into higher income categories and begin to purchase commercially, it is difficult to justify further concessional assistance.

Question: Most opportunity for shifts from aid to commercial sales would come as countries are approaching income levels where they would no longer qualify for direct Agency for International Development--AID--assistance, I would think. Is this true?

Answer: Yes, levels of per capita income are a key consideration in the decision to program P.L. 480 to a country and the financing terms of a particular agreement.

Question: Does P.L. 480 continue to work with countries after they reach this middle income status?

Answer: As I indicated earlier, countries do not usually receive sizeable amounts of P.L. 480 assistance once they are in a position to buy on a commercial credit or cash basis. In addition, our ability to program P.L. 480 to middle income countries is limited by the provisions of the P.L. 480 legislation.

Question: How many countries benefited from P.L. 480 in fiscal year 1984, and how many of these were middle income countries?

Answer: In fiscal year 1984, Title I/III agreements were signed with 26 countries. Nineteen of these countries had a per capita GNP level below $805, while the per capita income of the remaining seven was above this level. In addition, Title II food assistance was programmed to 71 countries. An estimated 50 countries had income levels below $805.

Question: How soon do you expect to reach the authorized level of Ultra-High Temperature--UHT--usage?

Answer: At this point, it is too early in the pilot program to anticipate when we will reach the authorized level of UHT milk. Currently, we are in the process of evaluating the test shipments made to Haiti and Tanzania. Questionnaires were prepared and submitted to the two countries to obtain their opinions on the UHT shipments as part of the evaluation process. Some of the questionnaire data still has not been received.

Question: What has been the reactions from Tanzania and Haiti regarding the UHT milk they received under Section 416?

Answer: The responses from both countries were positive.

SPECIAL AFRICA SALES PROGRAM

Question: Mr. Sims, you have mentioned the March 1984 legislation that authorized $90 million worth of CCC inventory to be made available to U.S. exporters on a competitive bid basis or barter. These companies could then sell these commodities to some 32 African countries requiring food assistance. Under this competitive bid process, what price is received for these commodities?

Answer: The Commodity Credit Corporation received the highest price obtainable under a competitive bidding process from the United States exporters who purchased the commodities.

Question: Do exporters have to bid within a certain range of the going market price in order to receive the commodities?

Answer: No minimum bid requirement was established.

Question: You mentioned that there were a number of implementation problems. What were some of these? If this were to be done again, could things be done to avoid these problems?

Answer: Several sales initially accepted under the first invitation, including two large sales of wheat and corn and a number of smaller sales of rice, were cancelled due to failures of the importers to open the necessary letters of credit. A number of those cancelled sales were replaced by alternative sales arranged by the same U.S. exporters as had arranged the initial sales.

Several steps were taken before issuing the second invitation to minimize risks of contract cancellations, and to ensure that the commodities were delivered to the importing countries as soon as possible.

First, U.S. exporters were given 45 days, rather than 30 days as allowed under the first invitation, to arrange sales with foreign importers.

Second, after their offer had been accepted, U.S. exporters were given 30 days to submit payment for the commodities, evidence that all necessary letters of credit had been opened, and a surety bond or other security of performance acceptable to CCC. Commodities were not delivered by CCC to the exporter unless all three conditions had been met. In cases where these conditions were not met, CCC's sale to the U.S. exporter was cancelled and another invitation issued for sale of those commodities.

Third, U.S. exporters were given 120 days from the date of the CCC contract to export the commodities.

AFGHANISTAN

Question: Has any P.L. 480 assistance gone to famine victims in Afghanistan?

Answer: The Department has made available 150,000 metric tons of wheat annually under P.L. 480 Title II for the Afghan refugee feeding program in Pakistan. The Department has also provided milk and vegoil to this ongoing refugee requirement in Pakistan. P.L. 480 assistance is not being provided within Afghanistan.

Question: What is the status of that situation?

Answer: As far as we know, the situation appears to have stabilized.

AFRICA

Question: As you know, the conference report on the supplemental appropriations bill for Africa is scheduled for a vote today on the House floor. Will this bill meet the emergency needs that exist in Africa?

Answer: Yes, the Department believes that the African supplemental bill will meet anticipated regular and emergency needs for the remainder of this fiscal year. However, we will continue to monitor food needs in Africa. Should additional needs develop, we will identify the necessary steps to address those needs.

Question: What plans have you made to help alleviate the long-term problems over there?

Answer: The Department helps address the long-term problems in Africa through the P.L. 480 Title I/III program and the technical assistance and training programs administered by the Office of International Cooperation and Development. In addition, we support the various efforts of the Agency for International Development.

REALIGNMENT OF GSM

Question: Last year, the Conference report on our regular appropriations bill placed the General Sales Manager under the Commodity Credit Corporation, rather than the Foreign Agricultural Service. Has this caused any problems.?

Answer: The Office of the General Sales Manager has remained closely linked to the Foreign Agricultural Service--FAS. The functions of the two agencies are complementary and close cooperation with FAS' agricultural attaches overseas and other personnel are essential to successful performance of the General Sales Manager's responsibilities. We are not aware of any serious problems resulting from this change.

Question: Has the General Accounting Office completed its report on the effectiveness of P.L. 480, Title II programs? If so, please give us a summary of your reaction to the study.

Answer: We are unaware of a recent or an ongoing GAO study of the effectiveness of P.L. 480, Title II programs. A GAO study of the P.L. 480, Title III Food for Development Program is nearing completion; we are still reviewing a draft of the report.

P.L 480, TITLE III PROGRAM

Question: Legislation requires that the aggregate value of all Title III agreements be at least 15 percent of the aggregate value of all Title I agreements. Why has there been difficulty in meeting this requirement? Why has the program reached only six countries since 1977?

Answer: Other U.S. food aid programs, such as Title I, also offer concessional assistance with less rigorous planning and oversight requirements. Many countries are not interested in accepting the additional administrative and monitoring burdens that Title III places on their governments.

Question: Essentially all disbursements made from special accounts have qualified for debt forgiveness. Does this indicate that the agreements are being successfully implemented? How do you ensure that disbursements are eligible for debt forgiveness?

Answer: The U.S. Government is obligated to forgive loans under Title III if deposits equal loan values and all proceeds are disbursed for agreed upon development activities. Title III provides that under normal circumstances financing of commodities shall not be extended if the terms of the agreement are not substantially met. AID is charged with overseeing the program but it is difficult to administer and monitor performance of the agreements in developing countries due to the lack of experienced personnel with developed administrative capabilities. The most successful Title III programs exist where there is a strong host-country institutional capacity, adequate, capable personnel and AID involvement.

Question: Inappropriate host-government policies sometimes constrain agricultural growth but Title III agreements do not require policy reform as a condition for loan forgiveness. What is the relationship between implementing policy reforms envisioned in most Title III agreements and the loan forgiveness provisions of the program?

Answer: A Title III agreement can stipulate policy reform measures to help improve agricultural production, marketing, and consumption. It is difficult to assess the relationship between Title III, the adoption of agreed upon policy reforms, and increased agricultural productivity. However, in many of the countries receiving Title III some policies thought to constrain agriculture are being changed, but instituting such reforms is a lengthy process and often difficult to monitor. It is also difficult to separate reform due to Title III from other factors, such as the influence of other donor programs.

Question: P.L. 480 Title I agreements are provided on highly concessional terms, can be authorized on a multi-year basis, and usually provide for a special account to fund development activities. Could all Title III objectives be just as well served through a Title I program? Is there really a need for Title III?

Answer: Both Title I and III authorize low-interest, long-term loans to purchase agricultural products, and directly link food aid with recipients' efforts to improve agricultural production. However, under Title III, as commodities are used or recipient governments disburse local currencies generated from their sale to pay for agreed upon agricultural products, loans are forgiven. Title III is an additional incentive for countries to undertake development activities, which authorizes food aid commitments up to five years. Title III programs have been successful in some of the recipient countries, such as Bolivia. However, some observers have suggested that Title I could achieve the goals of Title III.

Question: In a 1981 report, GAO recommended that AID be given lead agency responsibility to (1) design, review and approve Title III proposals, and (2) monitor and evaluate the program. Why has this recommendation not been implemented?

Answer: The recommendation has been implemented. While no single agency has responsibility for approving agreements and annual commodity deliveries--decisions are reached by consensus by the interagency Subcommittee on Food Aid. AID is responsible for helping recipient countries develop and justify proposals, administer approved agreements, and monitor performance and uses of local currencies.

P.L. 480 CURRENCY USE PAYMENTS

Question: Under provisions in selected Public Law commodity sales agreements, local currencies are paid to the United States. These currencies are then used to meet the in-country fiscal obligations of the U.S. government. Timely collections of currency-use-payments--CUP--are important because they aid the U.S. balance-of-payments position by reducing U.S. dollar purchases of local currencies, reduce Treasury borrowing requirements through the reduction in dollar outlays, and provide receipts to finance Public Law 480 programs. GAO reported in April 1984 that local currency collections have not been made on a timely basis and large amounts remain uncollected. Because these currencies were not collected and available when needed, the United States purchased $29 million in local currencies from commercial sources during the past two fiscal years. What corrective actions have been taken?

Answer: Increased efforts have been made to monitor the status of currency-use-payments--CUP--, the mechanism used for this transaction. The CUP is one part of the financing terms of a Title I/III agreement. When it is determined that amounts under existing agreements are outstanding, the U.S. embassy in the country is notified to make sure that payment has been requested from the government.

Question: What action was taken to collect amounts outstanding, and how much was collected?

Answer: Shortly after the report was issued, the State Department sent a cable to embassies in countries with currency-use-payments outstanding. The cable indicated that these payments are not taken lightly and if assistance is needed for collection, the embassy should contact the State Department or the Department of Treasury in Washington.

In 1984, GAO reported that local currency available under selected CUP agreements in fiscal years 1981 to 1983 totaled $34.4 million; that the amount collected under these agreements as of September 30, 1983, was $5.4 million; and that the resulting amount of local currencies outstanding was $29.0 million. The CUP agreements were with Costa Rica, the Dominican Republic, Egypt, El Salvador, Kenya, Madagascar, Peru, Sierra Leone, Somalia, and Zambia.

As of September 30, 1984, the aggregate status of CUP agreements signed with these same countries in fiscal years 1981 through 1983 was: the amount of local currencies available under the agreements totaled $32.4 million, the amount collected under these agreements was $27.0 million, and the resulting amount of local currencies outstanding was $5.4 million.

Question: Why aren't currency-use payment provisions included in more P.L. 480 agreements in order to obtain needed local currency rather than laying out additional dollars to meet such needs?

Answer: There are several reasons why CUP provisions are not included in a greater number of P.L. 480 agreements. Among these are: the CUP provisions conflict with the basic developmental objectives of the P.L. 480 program by requiring early payment for food assistance; CUP payments need to be budgeted by importing countries and new or increases in existing requirements are difficult to negotiate; the U.S. still has sufficient supplies of some local currencies from local currency payments under Title I; and the financial position of some countries is sufficiently poor that early payment in local currencies would impose a hardship on the countries.

Question: Have Subcommittee on Food Aid guidelines for the use of currency-use-payments been established as advocated in the GAO report?

Answer: No guidelines have been established as yet. The Subcommittee is exploring, however, the feasibility of collecting P.L. 480 arrearages in local currencies. Such actions have the potential to reduce P.L. 480 arrearages and U.S. Treasury outlays on local currencies.

FOOD FOR PROGRESS

Question: The President has announced a Food for Progress program to assist countries that are implementing important policy changes in support of agriculture. Implementation of this initiative would use some 500,000 metric tons of CCC-owned wheat, corn, and rice to make long-term commitments of support to some 6-8 nations initially. What is your reaction to this proposal from the CCC perspective?

Answer: The U.S. Department of Agriculture fully supports the concept of a Food for Progress program. Nevertheless, we are concerned about the means for funding such a program. The Commodity Credit Corporation was established to implement programs which support U.S. farm income and production stabilization. It is important that CCC be reimbursed for the use of its assets so that sufficient resources are available to satisfy its basic objectives.

Question: What impact do you feel such a program would have in fostering agricultural policy improvements? Could this be a useful mechanism for providing longer-term solutions to the food crisis in Africa today? Could such a program foster policy improvements that would assist in U.S. market development efforts?

Answer: Many African nations and other less developed countries do not have sufficient food or monetary resources to implement needed agricultural policy reforms. The Food for Progress program would enhance the availability of resources that could be used to expand the resource base of these countries to increase farm prices, encourage orderly marketing of goods, and expand commodity stocks. The program is designed to be multi-year in nature, and thus will assure recipients of relatively long-term, stable support. With the appropriate resource commitment, such an effort has good potential for reducing the food deficit in Africa. A stronger agricultural sector in these countries will promote economic growth which will, in turn, expand the countries' ability to commercially import greater quantities and varieties of foods.

DEVELOPING COUNTRY MARKETS

Question: You have begun focusing your attention on developing nations as a source of market expansion for agricultural products. Why have you decided to shift your emphasis to the developing nations? What do you see as the potential market in these countries, and in what time frame? Are there regions or specific countries that show greatest potential? What actions are you taking to develop these markets? What type of investment is being made to develop these markets by the Government and the private sector?

Answer: It is important to understand that although we have been devoting increasing efforts to overcome market constraints in developing countries, we have not abandoned our efforts in established markets. We continue to service the established markets with market maintenance types of programs.

However, our efforts in the lesser developed areas are commodity rather than country specific. In other words, we have not targeted our resources to any particular developing country, but rather to specific commodity/country combinations where we have identified constraints to trade. If we identify a constraint to trade for a particular commodity in a given country, but see no hope of developing a commercial market for that particular product in that country, we would not devote resources to deal with the constraint. In general, the constraints in Southeast Asia and the Middle East are being identified and addressed to a greater extent that those of other developing countries, because we are not able to effectively address the most important constraint in many developing countries. That is, the long range inability of a country to pay for imported goods.

Where we are working on specific constraints in a developing country, the results are sometimes immediate but typically do not appear for years. Likewise, at times the results are substantial but typically they begin small and grow slowly. As we identify more constraints to expanding agricultural exports, a greater share falls in the developing countries. As a result, the share of our budget devoted to activities in developing countries in South America, Africa, the Middle East and Southeast Asia has grown from about 41 percent in fiscal year 1984 to about 49 percent in 1985 and is projected to be 63 percent in fiscal year 1986.

P.L. 480 ACTIVITIES

Question: You suggest an appropriation language change that would increase to 15 percent the portion of funds which may be transferred among titles. You say this would let you provide a more effective response to the changing needs of importing countries. What do you see as the changing needs of the importing countries? What shifts among titles have taken place over the past 3 years?

Answer: In carrying out the objectives of the P.L. 480 program, we need the flexibility to transfer funds among titles in order to respond to humanitarian needs; and, to meet marketing opportunities that are not always apparent when funds are allocated between the programs at the beginning of the fiscal year. A list of these shifts among titles follows:

Transfers of Funding Within P.L. 480
Fiscal Years 1982-1985

Description	Amount	Date	From	To
Humanitarian assistance for Poland	$30 Mil.	1-7-82	Title I/III	Title II
Additional commodity programing for Bangladesh, Sri Lanka, and the Congo and increased ocean freight differential expenditures	$37 Mil.	6-25-82	Title II	Title I/III
Prevent interruptions in Title I/III programing due to a shortfall in receipts	$30 Mil.	8-19-82	Title II	Title I/III
Commodity assistance to Haiti, Honduras, and Morocco	$15 Mil.	9-16-82	Title II	Title I/III
Shortfall in receipts	$15 Mil.	9-30-82	Title II	Title I/III
Additional programing of rice for Indonesia	$ 5 Mil.	8-5-83	Title II	Title I/III
Prevent interruption in Title I/III programing due to shortfalls in receipts and for additional programing of wheat for Bolivia and Morocco	$45.4 Mil.	9-26-83	Title II	Title I/III
Humanitarian assistance for Africa and other countries	$50 Mil.	1-10-85	Title I/III	Title II
Humanitarian assistance for Africa	$40 Mil.	2-1-85	Title I/III	Title II

Question: One proposal for the 1985 Farm Bill calls for foreign currencies to be accepted for Title I, P.L. 480 commodities. What would be the advantages and disadvantages of this, in your opinion?

Answer: There are a number of advantages to allowing countries to remit P.L. 480 payments in local currencies. The proposal would enable P.L. 480 recipients to use their scarce foreign exchange resources for other imports that are essential to economic growth. In addition, the program may increase P.L. 480 receipts and reduce appropriations in the near term as recipients may be able to avoid arrearages or remit payment early on their loans. Finally, the proposal would reduce the amount of local currencies which the U.S. Treasury must purchase to support U.S. operations overseas. It is important, however, that the acceptance of local currencies be carefully coordinated with U.S. Treasury needs to avoid buildup of large "excess" stocks of currencies in particular countries. Also in the longer time frame, extensive use of local currency sales could reduce receipts. Also in view of past experience, we would need to be cautious about owning an inordinate percentage of an individual country's currency.

Question: Last year, the Congress authorized Ultra-High Temperature (UHT) milk to be substituted for dried milk in Section 416 donations. It is my understanding that almost no UHT milk has been used after all these months. Could you please explain what is causing the delay?

Answer: The Department does intend to comply with this legislation in a responsible manner. Pilot projects in Haiti and Tanzania are currently being carried out under the Section 416 program to test product acceptability. We believe that the product has arrived in the countries in good condition and was acceptable to the recipients. Meanwhile, we are proceeding to consider program requests for the product applying the same review and approval process that exists for all requests under the Section 416 program. We also have under consideration a program for the Government of Jamaica which we may be able to implement shortly. Other requests will continue to be reviewed for compliance with the program requirements of Section 416 programming and their use of UHT milk.

Question: What are you doing to expand the use of UHT milk?

Answer: Any requests received for UHT milk will be reviewed and considered by the established process for all Section 416 proposals.

OFFICE OF INTERNATIONAL COOPERATION AND DEVELOPMENT

QUESTIONS SUBMITTED BY SENATOR COCHRAN

AGRICULTURAL EXPORTS

Question: The volume of agricultural exports is declining, not increasing. Are we really building markets? If so, what is holding back the export volume? If the strength of the dollar declines, for example, will exports zoom upward?

Answer: Statistics developed by the Economic Research Service indicate that U.S. agricultural exports increased in volume and dollar value during calendar year 1984 over 1983. Price is only one of the factors that affects export sales. Consistent quality, assured supply, and credit are also important. Aggregate world-wide demand for agricultural commodities has been held back by global economic conditions. Such conditions have been worsened by such factors as the dollar's recent appreciation, vis-a-vis major competitors, and the inflexibility of the U.S. farm program which has eroded our ability to meet much of the price competition from key overseas markets. In addition, U.S. loan rates have worked as a "price umbrella" which has stimulated production for export by our major competitors as well as encouraged new entrants into export markets.

Therefore, the U.S. market share has declined due to relative prices among exporters and declining real income in our major growth markets - the LDCs. Thus, a decline in the value of the dollar will probably not result in a major increase in agricultural exports. We anticipate that income assistance to LDCs using U.S. commodities will have the largest impact in the short run while removing the price umbrella of the loan support program will have the greatest impact on medium term competitiveness.

In the long-run developmental assistance and training, which succeed in improving general economic conditions of the developing nations, will have the most significant impact on the ability of those nations to purchase U.S. farm commodities.

MIDDLE INCOME TRAINING PROGRAM

Question: What has been accomplished so far? How many people have been trained from how many countries?

Answer: During the first year (1984) of the Middle Income Country Training Program, 102 participants were selected for U.S. training from Colombia, the Ivory Coast, Korea, Mexico, Turkey, and Venezuela. Of these mid-level or senior level participants, 58 percent were government officials, 9 percent were university officials, and 33 percent represented the private sector. Participants enrolled in university classes, conducted research in USDA laboratories, and participated in "hands on" learning experiences in the areas of agricultural production, processing, marketing, management, disease control, and animal science.

Question: What is planned for the program for 1985? How is the program progressing?

Answer:

Eight countries are participating in the second year of the program: Algeria, the Ivory Coast, Iraq, Korea, Mexico, Turkey, Venezuela, and Yugoslavia.

Although the funding remains the same as for the 1984 program, we were able to expand the program to additional countries due to leveraging of funds. Some of the recipient countries and participating U.S. cooperators, including the American Soybean Association and the U.S. Feed Grains Council, agreed to provide funds for transportation and training, thereby increasing the monies available for training purposes.

Question: You are now into the second year of the training program I initiated to help provide continuing assistance to countries no longer qualifying for AID assistance.

a. In the conference report regarding the 1985 appropriations, it was noted that the Congress envisioned this to be at least a three-year program, with continuation after that to be determined by program evaluations at that time. I notice the 1986 budget did not request funding for the third year. Would you have problems implementing the program another year?

b. What types of feedback have you received from the countries and participants involved, the U.S. Agricultural Attaches in the participating countries, and the U.S. agricultural commodity groups?

c. I have heard that the private sector has been so enthused about the Middle Income Training program that they have offered to share some of the costs. Is this true? What impact would it have on the program?

Answer:

The President's budget request for fiscal year 1986 does not propose any new funding for the program; however, training begun with prior year funding will continue until completion. Over the past two years, we have developed and implemented the necessary administrative structure to facilitate the project and have developed the technical expertise required for effective and efficient management. Moreover, a network of contacts in the Federal government, agricultural cooperators, and the international educational community has been firmly established to support the program.

Evaluations of the training experience have been extremely positive. Participants cite improved skills and the establishment of valuable U.S. contacts as a result of their participation. USDA/FAS Counselors/Attaches overseas report increased contact with the Agricultural Ministries and private sector. U.S.-Trade Cooperators anticipate trade opportunities; one private U.S. company has already reported a $550,000 sale of dairy cattle resulting from involvement with the program.

Yes, the private sector has been supportive of the program. Their support has enabled us to provide training for additional participants and effectively "leverage" Federal funds.

INVOLVEMENT OF THE PRIVATE SECTOR

Question: You mentioned an agricultural marketing workshop for the Caribbean, citing some impressive direct benefits in the form of contracts generated through workshop contacts. What type of support did you have from the private sector for this workshop?

Answer: The involvement from the private sector was extensive. Of the over 200 speakers and moderators who participated in the program, approximately 75 percent were from the private sector, in addition to the U.S. investors and firms involved in exhibiting their products and services. Many joint ventures were consummated.

SCIENTIFIC AND TECHNICAL EXCHANGES

Question: Do your exchanges pursue collection of both data and physical resources (such as germplasm)? If so, how do you evaluate the validity of the data you collect on international exchange? Has any of the information collected recently (or any of the materials collected) had major impact on U.S. research or other activities?

Answer: Scientific and technical exchanges focus on areas of specific interest but are designed to emphasize mutual benefit. Exchanges provide (1) for the collection of scientific, statistical, and agro-economic information (2) the collection of unique resources, such as germ plasm unavailable in the U.S.; (3) opportunities to learn about special research, conservation, and production techniques; and (4) an opportunity to share new research findings and update scientists with similar interests on the status of ongoing work.

Data collected from exchange activities are circulated to appropriate professional organizations and individuals for evaluation and for the purpose of sharing information with U.S. agriculture and enhancing current work by U.S. institutions. OICD works closely with USDA's technical agencies (especially the Agricultural Research Service, Animal and Plant Health Inspection Service, Forest Service, and Soil Conservation Service) and the land-grant colleges and universities to evaluate and apply results to research and other scientific activities.

Scientific and technical exchange activities which have had an impact in U.S. research and other activities include: (1) an exchange on forest genetics with China which resulted in U.S. sales to China of more than $180,000 in tree seeds last year; (2) test plantings in the southeastern United States of species of trees obtained through the China exchange program which, potentially, could provide the U.S. with a valuable new furniture wood, and (3) new scientific information on guayule and jojoba useful in the Department's efforts in identifying replacement crops. Information on guayule, jojoba and Veronia may contribute to expanding the U.S. industrial base by providing a domestic source of natural rubber (guayule) and a new source of industrial lubricants (jojoba and Vernonia).

Question: It is very interesting to note that participating countries, universities, and USDA Cooperators contribute about $3 for every dollar spent by USDA on scientific and technical exchanges. This seems like a very cost-effective program. In what ways are these contributions made? What inspires such cost sharing?

Answer: Contributions are made in a number of ways, including the unreimbursed time contributed by participating scientists and specialists; direct contributions, usually transportation, paid for by foreign governments; in-kind support provided by universities, cooperators and other agencies, and "receiving-side-pays" arrangements whereby the foreign government covers in-country costs for U.S. scientists overseas while the U.S. pays the expenses of foreign scientists when they come here. In addition, host countries provide support services to visiting scientists at no cost to the U.S.

Scientific and technical exchanges are initiated by participating institutions and individuals in the interest of the agricultural sector. The exchanges produce specific benefits through access to foreign research facilities and personnel, opportunities for research cooperation and testing in the field, timely exposure to technical information, access to unique biological materials, and development of scientist-to-scientist contacts. By participating in OICD scientific exchanges, scientists are freed from the time-consuming administrative details required for contacts between the U.S. and foreign officials and is, therefore, able to concentrate on substantive aspects of the exchange. In some countries, such as the Soviet Union, USDA's formal agreements with host Governments provide the only practical means of access for carrying out activities with that country.

Question: Scientific exchanges have been resumed with the USSR. Some people say it's fine to send agricultural products to the USSR, but they argue that we shouldn't be sharing our technological "know-how" with any country that is fomenting revolution in our back yard.

a. What is your reaction?

b. Why are we having scientific exchanges with the USSR?

Answer: Scientific exchanges with the USSR are based on the concept of mutual benefits. We will share our technological "know how" with the Soviet Union in exchange for what we want to gain from them, such as economic data, access for U.S. teams to observe crop conditions (which is useful in predicting world trade patterns), and biological materials for plant protection and production. There will be no disclosure of scientific information or release of U.S. technology that is prohibited under existing law or regulation.

Scientific exchanges with the Soviet Union are an integral part of overall U.S. foreign policy. Through the bilateral Agreement on Cooperation in the Field of Agriculture, we hope to help develop a network of contacts and a spirit of mutual interests with the Soviets that can contribute to reduced tensions and enhance understanding between us. By working directly with the Soviets, we hope to introduce them, not only to American agricultural practices, but also to the American way of life. Scientific exchanges can also help provide entry into the Soviet market which may lead to increased agricultural trade with the USSR.

AGRICULTURAL INFORMATION CENTER

Question: On what basis have you decided such a Center is needed, other than the recommendation? How many requests would you anticipate coming to such a Center? How many would be from the U.S. private sector, and how many from other nations?

Answer: The principal idea behind the establishment of such a center was to minimize the number of offices an inquirer must contact to obtain information for making investment decisions. Many callers have complained that it takes too many telephone calls to get to the appropriate office for a proper response. The information Center would serve as a one-stop clearing house for agriculturally related information. We anticipate an average of 100 requests weekly, including visits, mail, and telephone requests. Of these, 85-95 percent would originate from U.S. government (including state and local) and agribusiness concerns, and the remainder would come from foreign sources.

Question: What would be the impact on other agencies? Would their workload diminish? Would you anticipate any negative reactions from them regarding this proposal, or would they encourage such a central USDA "clearinghouse" that would combine their information with materials from other agencies to provide users with a total package?

Answer: We have established excellent working relations with key USDA and other Federal Agencies, all of whom agree that the establishment of the Center would serve as a valuable resource.

Question: You are asking for $200,000 to develop an Agricultural Information Center. This center has been recommended by the Agricultural Promotion Council, a private sector advisory body to the Secretary. If this is something the private sector is wanting, and they stand to receive direct benefit from the information provided, could this be supported by user fees after initial start-up costs are covered? Would user fees be part of the plan for future years?

Answer: Yes, potential implementation of user fees will be evaluated after the Center is fully operational.

Question: You have indicated that the Center would utilize information already existing within USDA. If the information already exists, why is a special Center needed? What benefits would be gained? What special service would be provided?

Answer: Information currently exists throughout the various agencies of USDA, but is not available from a single source. Our objective is to serve as a one-stop clearinghouse for information, and make it easier for the public to obtain necessary material. Establishment of the Center will facilitate prompt and complete responses to public inquiries and serve as a focus for USDA-wide activities. We do not anticipate that special services would be provided beyond the special attention given the individual request.

INTERNATIONAL RESEARCH

Question: You are proposing eliminating the whole Foreign Currency Research Program because the types of currencies determined to be in excess by the Department of the Treasury have declined. Are excess currencies still available and, if so, where?

Answer: The number of Special Foreign Currency (SFC) Research Program countries has diminished since the early 60's when 32 countries had ongoing projects. However, the number of grants executed each year has remained about the same, and program benefits have increased as the research findings are applied in agriculture.

Excess currencies are still available in India, Pakistan, Burma, Guinea, and Poland. It is expected however, that India will be removed from this list by the end of 1985. In addition, a number of countries, including Taiwan and Yugoslavia, are "near excess," where balances of U.S. owned foreign currency are on hand that can be used for high-priority U.S. Government activities.

Question: The excess foreign currencies do not represent a dollar outlay by the U.S. Government, as they are simply intergovernmental fund transfers. In this regard, it seems to be prudent to use these for some beneficial purpose rather than just letting them sit. If you were to be authorized to use funds in FY 1986, what would be some of the research interests you might have? What major types of research would you undertake? What would be your priority interests?

Answer: We are not seeking this authorization because of reduced availabilities of these foreign currencies. In general, our international priorities parallel U.S. domestic ones, but certain unique aspects of international work lead us to emphasize these strengths.

First priority is given to research that cannot be done in the United States, such as exotic animal and plant diseases. Foreign scientists are able to work on pests and diseases that are quarantined in the United States. Therefore, they can evaluate techniques that are not permitted in the United States at the present time. Because of U.S. emergency concerns, we have begun programs in India and Pakistan on Karnal bunt of wheat. This serious disease of wheat was discovered in U.S.-operated wheat seed development nurseries in Mexico in early 1983. Because this disease originated in South Asia, India and Pakistan are ideal locations for research. Scientists and research sites have been identified, research plans prepared, and work has begun to determine effective ways of combating this disease. Our ability to do this in the country of origin is important because of the danger of contamination if done in the U.S. A complementary project under the Collaborative Research Program is studying the disease with CIMMYT in Mexico.

Second priority is to obtain and/or evaluate plant and animal germplasm, or biological control materials that are not available here, or study differing storage and transportation situations for U.S. exports.

Third is to do quality research on subjects of high priority to the U.S. such as non-traditional approaches to biotechnology, or perform some types of good research that are particularly labor intensive.

Question: If the total pool of excess currencies is being reduced, there will have to be priorities established regarding how to use these funds. Would it be in the U.S. interest to use these for international research--would this be a priority area in your opinion? How would the U.S. benefit from the international research -- and specifically, the U.S. farmers? Have there been particularly useful research results that you might like to highlight?

Answer: In addition to the study of diseases, pests, and other problems that do not occur in the U.S., we have a high interest in obtaining and evaluating plant and animal germplasm or biological control materials not available in the U.S. and in studying different storage and transportation situations for U.S. exports.

Significant research has been produced by the program. An example is the history of the control, by biological means, of the cereal leaf beetle in the U.S. The discovery of biocontrol agents in Yugoslavia was reported in 1972 Congressional testimony but took several years to become established throughout the Northeastern United States. This kind of immensely valuable research requires time and sustained effort to pay off. Other successes include biological control of the citrus whitefly and sugarcane borer in Florida through the release of natural enemies obtained through the SFC Program.

Highlights of research sponsored in FY-84 follow:

Weed Control. The control of many species of noxious weeds is being studied at 13 locations in India. In addition to identifying and describing the biology of these weeds, the researchers are pinpointing weak links in their life cycles and developing control techniques that efficiently attack these weak links. The techniques being used include: (1) induction of early germination before environmental conditions will allow survival; (2) screening of various herbicides and herbicide mixtures, and (3) competition among weeds and crops for essential nutrients. Soil samples also are being analyzed to determine the extent of herbicide residues. This information is directly applicable to weed control problems in the U.S.

Listeriosis. Yugoslavian scientists have developed a valid test for listeriosis, a livestock disease known to infect humans. When present in animals, listeriosis causes infected livestock to circle around in a daze. Listeriosis has human symptoms very similar to those of mononucleosis. It is a suspected factor in miscarriages. A recent outbreak in the Boston area resulted in several human deaths and has re-emphasized the importance of this research. As a result of this project, veterinarians will be able to test suspected herds and contain the disease. This should help prevent its spread to other animals and humans.

Bee Parasites. Honeybees are essential for the pollination of many major U.S. crops. These bees are very susceptible to fatal infestations by various species of mites such as the acarine mite which is currently infesting the U.S. honeybee population. OICD is currently sponsoring research on this mite in Pakistan, using P.L. 480 funds, and in Israel, in cooperation with BARD. Studies are underway in Yugoslavia on the abilities of bees to resist infestations by other dangerous mites. Researchers will determine what genetic variation in resistance exists among infested bees. Positive evidence of resistance will guide breeding efforts. Environmental factors will also be assessed for their effects on these mites' life-cycles.

Rice Disease. Indian scientists screened 200 varieties of rice to determine susceptibility and identify resistance to several rice diseases not now found in the United States. Exotic strains of these pathogens--tungro virus, ragged rice stunt, bacterial blight, and rice blast--are spreading rapidly in some areas of the world, increasing the possibility of their arrival here. The rice types developed by the 5-year program will provide sources of resistance which can greatly benefit our cooperative Federal-State rice improvement program.

Karnal Bunt. Karnal Bunt, a serious disease of wheat, was discovered in U.S.-operated wheat seed development nurseries in Mexico in early 1983. This disease originated in South Asia, making India and Pakistan ideal locations for research. Scientists and research sites in both nations have been identified, research plans prepared and work has begun to determine the most effective ways of combating this disease. The ability to do this type of research in the country of origin is very important for two reasons: (1) the danger of contamination if done in the U.S.; and (2) the large gene pool of resistance close to any pathogen's center of evolution.

Livestock Disease. Research in Yugoslavia has confirmed the viral cause of Sheep Pulmonary Adenomatosis (SPA) and its transmissible nature. This information facilitates U.S. research in developing serological tests for early diagnosis and a vaccine for control of the disease.

Embryo Transfer. Research in Yugoslavia and Pakistan will provide information on the transmissibility of livestock diseases by embryo transfer. Preliminary research has shown that certain infectious diseases are not likely to be transmitted by embryos. If this proves true, breeders can exchange bloodlines without danger of also exchanging diseases. Embryo transfer is more efficient than artificial insemination for upgrading livestock in developing countries. Not only is the transferred embryo free of diseases from its biological parents, but the surrogate mother also provides acquired immunity to native diseases at birth. The results from this research will enable quarantine officials to draft new rules for international trade in livestock embryos.

Question: How do you coordinate research efforts involving both U.S. and overseas research organizations? Wouldn't it be easier to do all research in the U.S.? Why are we interested in having research projects overseas?

Answer: The foreign countries where research projects are conducted, of course, have their own priorities and interests.

Therefore, the research that we conduct overseas must be of mutual benefit to the United States and to the "host" country. We conduct workshops with the counterpart government research councils to establish priorities for these projects. Also, each research proposal is evaluated through a screening process in the home country and the United States.

In many instances, it is more cost effective to do research overseas as compared to the United States, such as in screening germplasm for resistance to diseases or pests. As an example, the entire world collection of sorghum germplasm was screened for resistance to downy mildew under a project in India conducted under the Special Foreign Currency Research Project--at essentially no cost to the United States. Similarly, scientists at the Research Institute of Vegetable Crops in Poland have developed a new screening method to find resistance to the fungus Phytophthora parasitica in tomato varieties.

SUBCOMMITTEE RECESS

Senator COCHRAN. Our next hearing is going to be Thursday, April 4 in this same room beginning at 10 a.m. At that time we will hear from representatives from the Food and Drug Administration and the Commodity Futures Trading Commission. The hearing is now recessed.

[Whereupon, at 12:05 p.m., Tuesday, April 2, the subcommittee was recessed, to reconvene at 10 a.m., April 4.]

AGRICULTURE, RURAL DEVELOPMENT, AND RELATED AGENCIES APPROPRIATIONS FOR FISCAL YEAR 1986

THURSDAY, APRIL 4, 1985

U.S. SENATE,
SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS,
Washington, DC.

The subcommittee met at 10:05 a.m., in room SD–124, Dirksen Senate Office Building, Hon. Thad Cochran (chairman) presiding.

Present: Senators Cochran, Mattingly, Specter, Burdick, and Sasser.

FOOD AND DRUG ADMINISTRATION

STATEMENT OF FRANK E. YOUNG, M.D., PH.D., COMMISSIONER OF FOOD AND DRUGS, FOOD AND DRUG ADMINISTRATION

ACCOMPANIED BY:
- **THOMAS SCARLETT, CHIEF COUNSEL**
- **GERALD F. MEYER, ASSOCIATE COMMISSIONER FOR MANAGEMENT AND OPERATIONS**
- **FRANK P. CLAUNTS, DIRECTOR, DIVISION OF FINANCIAL MANAGEMENT**

OPENING REMARKS

Senator COCHRAN. The subcommittee will please come to order.

We are very happy this morning to welcome the Commissioner of the Food and Drug Administration, as well as the the Chairman of the Commodity Futures Trading Commission. We will be looking this morning into the proposed spending levels for these two agencies for the next fiscal year.

We will operate with two panels. First we will hear from the Food and Drug Administration, and then we will hear from the Commodity Futures Trading Commission.

The Food and Drug Administration, as you know, is responsible for protecting the public health of the Nation against hazardous foods, drugs, biological products, cosmetics, medical devices, and radiological products.

The budget request for the Food and Drug Administration for 1986 is about the same as last year, in that it would maintain the current level of program operations. The request is $409,072,000. User fees are again proposed to recover costs of services to private drug manufacturers.

We are especially glad to be able to meet Commissioner Frank Young, who is here today. Dr. Young, we invite you to introduce those who have accompanied you to the hearing and to proceed to make your presentation to the committee.

PREPARED STATEMENT

We have your statement, which we will make a part of the record in its entirety, so we encourage you to make such summary comments as you choose.

[The statement of Dr. Young follows:]

STATEMENT OF DR. FRANK E. YOUNG

Mr. Chairman, I am pleased to have the opportunity to appear before your Subcommittee today to discuss the Food and Drug Administration's budget request for 1986. I would first like to introduce my colleagues at the table with me....Other members of my staff are also present if needed to respond to specific questions and interests of the Committee.

I would like to discuss several of FDA's major priorities and significant events in each area over the past year. The subjects, which have been of continuing interest to the Subcommittee, are:

- orphan products,
- implementation of the Drug Price Competition and Patent Term Restoration Act of 1984,
- revision of the New Drug and Investigational New Drug Application regulations,
- antibiotics used in animal feeds,
- programs to monitor adverse experiences with drugs and medical devices,
- progress in promoting sodium labeling of foods,
- the status of our new headquarters laboratories construction,
- the Action Plan which I have initiated, and
- work on minor species and cooperation with the Department of Agriculture.

I would then like to follow with a few remarks on our 1986 budget request.

Orphan Products

I would like to begin by summarizing our Orphan Product activities of the past year, since this remains one of the Agency's highest priorities and has been of concern to the Subcommittee for several years.

Under FDA's Orphan Products Development Program, six orphan drugs were approved for marketing in 1984, and marketing applications for 12 others are under review. Official "orphan" designation under guidelines implementing the Orphan Drug Act of 1983 was granted in Fiscal 1984 to 19 companies. For the first five months of Fiscal 1985, we have granted 35 additional orphan drug designations. In addition, in 1984 the Agency obtained commitments from eight drug companies to market new orphan drugs, and awarded $1.2 million for new as well as continuing projects to aid in the research of orphan products for rare diseases. We plan to award $1.4 million for such grants in 1985 and $1.5 million in 1986. Moreover, the National Institute for Child Health and Human Development has agreed to provide us with $1 million in 1985 for additional grants, which will even further expand this important research effort.

Also, the Orphan Products Board has announced the establishment of the National Information Center for Orphan Drugs and Rare Diseases, to provide patients and health care professionals with information on rare diseases and research and treatments of specific rare diseases.

ANDA/Patent Extension Legislation

In response to new legislation, we have expedited activities related to approval of duplicate versions of drug products, or generic drugs, which are already on the market. The Drug Price Competition and Patent Term Restoration Act extends shortened approval procedures (Abbreviated New Drug Applications, or ANDAs) to duplicate versions of "pioneer drugs" approved after 1962. Prior to enactment of this legislation ANDAs were allowed only for those drugs originally approved for safety between 1938 and 1962 and later found effective under the Drug Efficacy Study Implementation Program. Under the new legislation, a manufacturer of a generic copy of a drug approved for safety and effectiveness before or after 1962 may use an ANDA. An estimated 150 drug products approved after 1962 are currently off patent and will now be subject to potential competition from generic copies through the ANDA procedure. The legislation is expected to lead to the submission of approximately 3,000 ANDAs in the early years of implementation. Many drugs are still under patent protection, but six of the current top ten selling drugs will be eligible for ANDAs immediately. ANDA submissions on these drugs alone could account for 900 applications over the next several years. In fact, 201 applications were received on November 26, 1984, the first day on which the new applications could be submitted. Following the passage of this new law, we promptly provided guidance to the drug industry on the procedures to be used before final regulations are in place; we have already hired most of the additional staff needed to implement the new authority. We are also working with the Patent and Trademark Office to implement the patent extension provisions of this Act, which provide additional patent protection to the innovators of new drug products, medical devices, and food additives to compensate for the time consumed in the review process before they can market new products.

NDA Rewrite

I would also like to discuss a recently published regulation known as the "NDA Rewrite," which revises and streamlines the new drug approval process and ensures updated safety reports on drugs. We believe that the new regulations will help useful drugs reach patients faster and could shorten the approval time significantly. Changes include a new application format which will reduce paperwork and will allow simultaneous, rather than sequential, reviews by the necessary disciplines--clinical, pharmacological, chemical, statistical, and biopharmaceutical. These changes will provide for the early resolution of differences between FDA and industry when a drug does not appear to be approvable, and requires FDA's assessment of approvability within 180 days of receipt of the application. Other changes clarify the conditions under which new drugs may be approved solely on the basis of foreign clinical data, providing those data meet U.S. testing criteria. Still further changes provide for companies to update their pending NDAs with new safety information and strengthen surveillance of marketed drugs to expedite reporting of adverse effects. As a by-product of the rewrite effort applicants will have made available to them various FDA-approved guidelines that will provide extensive information on FDA's expectations toward submissions. I would also note that we are continuing our work on the rewrite on the Investigational New Drug regulations, which we hope to finalize in the near future and which will further streamline the overall drug development process.

Antibiotics in Animal Feeds

An area of continuing controversy is the long-term, subtherapeutic use of human antibiotics in animal feeds. These are used for improving feed efficiency and rate of weight gain, and for disease prevention in farm animals. Because these uses appear to promote the development of drug resistant bacteria in animals, and routes for the movement of these resistant bacteria to man are available, there is some concern that drug resistance in the bacteria associated with food animals may affect the bacteria that causes disease in man. Therefore, the potential exists for the future compromise of drug therapy in animals and in humans. In 1977 the Agency proposed restricting the use of two of these drugs. Since then, several new studies have increased our knowledge of the possible linkage of low-level antibiotic feeding in animals to disease in humans. On November 20, 1984, the Natural Resources Defense Council (NRDC) petitioned Secretary Heckler to declare the subtherapeutic uses of penicillin and the tetracyclines in animal feeds an imminent hazard to the public health. NRDC argues that, on the basis of three recently published scientific studies, these low-level uses of antibiotics meet the criteria for imminent hazard under the law, and that the Secretary should require that their use be banned immediately. In response to this petition, we held a public hearing this past January to solicit views on this issue. At this hearing a wide range of views was presented by 36 individuals, representing a broad spectrum of interests.

We are currently evaluating the new data gained from recent studies, as well as information presented at the hearing, to determine a course of action.

We are looking at three basic options. The first would be to conclude, in response to the NRDC petition, that the subtherapeutic use of antibiotics in animal feeds presents an imminent hazard--and to recommend that the Secretary withdraw these approved uses immediately. A second course of action would be to recommend that the Secretary deny the NRDC petition but still begin the process of holding evidentiary hearings on the withdrawal of these approved uses. A third broad option would be to conclude that the status quo is fine, and go no further with any administrative proceedings on antibiotics in animal feeds. Sometime later in the spring FDA expects to make a recommendation to the Secretary with respect to the imminent hazard petition. The Agency will continue to keep the Committee informed of further developments in this important issue.

Adverse Reactions

One of the most crucial aspects of our regulatory mission is post-marketing surveillance. The Agency must continually adapt its inspectional and analytical expertise to both detect and prevent harm to consumers resulting from unsafe and defective products. A recent regulation will significantly enhance our ability to monitor adverse reactions in medical devices. Effective December 13, 1984, device manufacturers and importers are required to notify FDA within five working days of a device-related death or serious injury, and within 15 working days of a device malfunction that could cause or contribute to a death or serious injury. Previously, reporting of adverse incidents with medical devices was largely voluntary, with FDA receiving reports from a variety of sources, including reports from health professionals, hospital emergency rooms, consumers, attorneys, and others. We expect this new regulation to increase yearly reports from 2,500 under our voluntary reporting system to 20,000, which will be a significant help in alerting us to potential problems at the earliest possible date.

Exemptions from this new regulation are allowed for devices subject to FDA's Investigational Device Exemption regulations, and devices manufactured or imported by practitioners or other persons solely for their own use, for research, or for teaching purposes. Other mechanisms exist to obtain information on adverse incidents in those situations.

At the same time, we also are receiving an increasing number of adverse experience reports on human drugs--the number received in 1984 was over 40,000. We have made significant strides in keeping up with this workload and improving our ability to detect problems, and I have made it one of my highest prioritites as Commissioner to continue to focus on these efforts so that we can efficiently and quickly analyze previously-unknown problems and do whatever is needed to protect the consumer. The new "NDA Rewrite" regulation referred to above will further strengthen FDA's abilities to protect the public health in this regard.

Sodium Labeling

I would like to continue my discussion of Agency program activities on what I believe is a very positive note--namely, our progress in the area of sodium labeling. Our primarily voluntary approach to the public health problem of excess sodium consumption continues to be very successful. I am pleased to report significant progress in two areas--increasing consumer awareness about the sodium content of foods and its relationship to health, and reducing the sodium content of foods through the introduction of new products.

Our most recent Food Labeling and Processing Survey shows that in

1984 46 of the 51 processed food groups now include some products with quantitative sodium labeling, up from 40 in 1983. Our survey also reveals that quantitative sodium information now appears on the labels of foods accounting for 39.6 percent of grocery sales of FDA-regulated packaged processed foods. This is an increase of nearly 10 percent over the previous year's data.

In April 1984, FDA published final regulations governing label declarations of sodium content in foods. These regulations, which are designed to enhance consumer understanding and prevent false and misleading labeling, will require sodium content declaration whenever full nutrition labeling is required. They will also define certain sodium-related terms such as "sodium free," "low sodium," and "reduced sodium." These regulations were scheduled to become effective July 1, 1985; however, several segments of industry are faced with the problem that, despite their good-faith efforts to comply, they must destroy substantial label stock in order to meet this deadline. To minimize the burden on industry, we are contemplating a proposal to delay the effective date by six months. When the regulations become effective, we are confident that more than 50 percent of FDA-regulated packaged processed foods will bear sodium labeling.

Mr. Chairman, we believe the Agency's overall sodium program has been successful, and we will continue to work with industry, USDA, and the Committee to ensure progress in this area.

New Headquarters Laboratories

Our success as a regulatory agency depends to a great extent on the quality of the Agency's science. We already have a core of first-rate scientists with a dramatic mandate of their own: to keep abreast of a technology which accelerates at an almost incomprehensible rate. This technology is being applied to products which are reshaping the medical and health professions, as well as the way these products are made. Our new laboratory facilities in Beltsville, Maryland are a vital part of the Agency's technology assessment capability. Thanks to this Committee's continued support, Module I of our new facilities is nearly completed, and we should begin relocation of the animal testing and related laboratory facilities presently located in our Federal Building 8 here in Washington by the summer of 1986. I believe this Committee will be justifiably proud of this facility and the work that will be accomplished in it.

Action Plan

When I began my tenure as FDA Commissioner, I was given an ambitious and dramatic challenge by Secretary Heckler—to prepare the Agency for the 21st century. In response to this challenge, I initiated a comprehensive review and reassessment of FDA's ongoing operations and activities. The first step was an exploration of both internal and external perceptions to determine how the Agency must prepare to meet the opportunities and challenges of the future. To accomplish the internal assessment, six task forces of FDA personnel were charged to develop recommendations. The external assessment involved a total of 20 meetings with 70 groups.

The Agency's review of all of these recommendations has been a profound lesson in humility. The challenges the Agency faces are real and complex, and the many suggestions and ideas gathered have considerable merit. The result will be an Action Plan that provides a written philosophical foundation and a practical course of action for the Agency to pursue in order to maintain its excellence and prepare to meet the challenges of the next decade and, indeed, the next century.

This Action Plan will be made public in the near future. The essence of it, however, will include assuring that we:

- improve and further accelerate the new product approval process without compromising quality,
- improve the implementation of the Medical Device Amendments,
- strengthen post-marketing monitoring of approved products,
- enhance our ability to assess and manage risks presented by regulated products,
- preserve the safety and enhance the nutritional quality of our food supply,
- keep abreast of important new technologies, and
- improve the Agency's internal management.

I believe that this plan will chart a course of action for the Food and Drug Administration that will meet with both the approval and the support of this Subcommittee.

Minor Species and Cooperation with the Department of Agriculture

Next I would like to discuss some issues which affect this Subcommittee's interests across the country. I have observed much in my tenure as Commissioner of FDA. One fact that is illustrated time and again to me is the cooperative relationship this Agency has enjoyed with the Department of Agriculture, and how beneficial this relationship has been to both Agencies, as well as to the public. I understand now why it is so important for us to appear before this particular Subcommittee, and I expect this cooperative relationship with USDA will continue to assist us in the future.

We collaborate with USDA on many important consumer issues; for example, FDA cooperates with USDA on a Task Force on New Quarantine Technology to consider alternatives to EDB fumigation, such as food irradiation; we collaborate in the regulation of veterinary biologics; and we maintain a close association in the area of human nutrition. Another area of close liaison is minor use/minor species animal drugs.

FDA and USDA's Interregional Research Project Number 4, or the IR-4 Project, jointly sponsor an annual workshop on minor use/minor species animal drugs. Also, FDA is supporting cooperative research with two separate institutions--the University of Kentucky and Tuskegee Institute--and a Consortium of four veterinary medical schools from Auburn University, Mississippi State University, Louisiana State University, and University of Illinois. The Consortium is composed of leading scientists in many disciplines, assembled to form an in-depth research unit to generate comparative information upon which FDA may base "cross-species" animal drug decisions. The Consortium ultimately will provide information that will contribute toward the availability of new drugs to help control diseases in minor species such as fish and game birds.

A significant effort in this minor species area involves catfish. As you know, catfish production is a young but growing industry with 68,000 acres of "farms" in the Mississippi Delta. As part of our collaborative effort within the Consortium, we visited members of the catfish industry in Mississippi and reviewed the entire production process as it might relate to disease control. Our activities have been appreciated and the Committee might want to include in the record a letter we recently received from the Delta Council about our efforts in this area and our support of their research program.

Catfish farmers, like cattle producers, face the problem of raising healthy livestock in a clean environment, to minimize the risk to both animal and man. While warm water ponds promote the fastest growth for catfish, they also breed bacteria more quickly than cold water ponds. Thus, as with other food animal species, catfish are medicated to safeguard their health. As is the case with human orphan drugs, research and development costs for minor use animal drugs exceed the economic benefit to the manufacturer. Because of the lack of approved drugs for minor uses, producers and veterinarians are faced with the practical necessity of using drugs for unapproved purposes. Such use can be illegal and is without the safeguards that approved drugs carry. Yet untreated diseases pose potential financial loss to the producer, suffering by the animal, and health hazards to the public.

The Consortium's work will facilitate approval of drugs to combat diseases in catfish and minor species in general by providing comparative research of major and minor animal species as a basis for the extrapolation of data from approved major use drugs to minor use drugs. The Consortium will play an essential role in filling gaps in our pool of minor use/minor species drug knowledge.

Another scientific area of shared interest is the problem of aflatoxin as it relates to animal feed. As you know, aflatoxins are carcinogenic by-products of molds and can contaminate foods. Corn and peanuts grown in southern regions of the country and cottonseed from the southwest are the most highly susceptible to contamination. Corn, whole cottonseed, and cottonseed meal, in particular, are widely used animal feed ingredients and pose an indirect and consequently much more complex threat to human health. Aflatoxin residues are found occasionally in milk and less in meat and eggs of animals that consume contaminated feed. However, because our scientific knowledge in this area is incomplete, we have had to set action levels for aflatoxin-contaminated feed ingredients shipped in interstate commerce that cause severe economic restraints on the animal feed industry. Research is crucially necessary to study the effects and transference of various aflatoxin levels and to develop a safe method of detoxifying contaminated feed ingredients, especially cottonseed meal.

There is a method, ammoniation, which detoxifies the cottonseed but which, again because of gaps in our scientific knowledge with respect to human safety, has yet to be approved. We must be assured that the ammoniated detoxified product, as well as any resulting by-product of the ammoniation process, is safe. The ammoniation process is subject to the food additive provisions of the FD&C Act and is the subject of an as yet unapproved industry sponsored petition submitted to FDA. Until all the pieces in our scientific puzzle are found, we must continue to apply a necessarily conservative aflatoxin action level to cottonseed meal, and the food additive petition for the ammoniation process will remain unapproved. But we are conducting studies to generate the needed data. Of particular interest is dairy cattle research being performed at our Beltsville facility on the transference of aflatoxin from contaminated feed to milk. These studies are utilizing both FDA and USDA facilities. USDA has also conducted research on aflatoxin and ammoniation to add to our shared pool of knowledge. FDA will keep the Subcommittee informed of [illegible] progress in aflatoxin contaminiation.

Let me now turn my attention to our 1986 Budget Request.

1986 Budget Request

Our total request for 1986 is for $414 million, of which we are asking for an appropriation of $409 million and authority to use up to $5 million of user charges to be collected. The total appropriation requested represents a decrease of about $600,000 from our current 1985 budget authority.

We are again proposing to collect user charges for the cost of reviewing new drug applications. I realize that a similar request last year was viewed unfavorably by this Subcommittee. In compliance with this Subcommittee's report language, we are not trying to implement such user charges during the current fiscal year. However, I personally believe that such charges are not only appropriate, but essential as a significant tool to help reduce the current budget deficit without reducing FDA's level of operations. I hope you will reconsider our proposal.

I believe our regulations benefit both consumers and industry. Drug manufacturers are perhaps the biggest beneficiary of the assurances which FDA approval provides the consumer. We believe it is only fair that the drug sponsors should pay for services which clearly confer upon them a substantial economic benefit. We are consequently proposing to charge sponsors for the full cost of new drug application review, although we would exempt such functions as reviewing orphan drug applications. I would stress that we intend to institute these charges in accordance with existing law and in a way that will not jeopordize the integrity of our drug review activities.

Mr. Chairman, this concludes my prepared remarks. I will be happy to respond to any questions you or members of the Subcommittee may have.

BIOGRAPHICAL SKETCH

DR. FRANK E. YOUNG

The new FDA Commissioner, Dr. Frank E. Young, 52, M.D., Ph.D., is a pathologist, a microbiologist, an educator and a researcher in fundamental genetic techniques. He comes to the Agency from the University of Rochester, New York, where he was Chairman of the Department of Microbiology (1970-79), Dean of the School of Medicine and Dentistry (1979-84), Director of the Medical Center (1979-81) and Vice President for Health Affairs (1981-84). At Rochester he was professor of Microbiology, of Pathology and of Radiation Biology and Biophysics. His clinical responsibilities included Director of the Clinical Microbiology Laboratories, Strong Memorial Hospital (1970-79), Microbiologist in Chief, Strong Memorial Hospital (1976-79), Pathologist, Strong Memorial Hospital (1970-84).

While Dean, he also developed a laboratory for biotechnology research to work on the cloning of genes and development of vaccines. He has published over 150 scientific articles on his research and has participated in government deliberations on genetic engineering.

He was an editor of the journal Gene from 1976 to 1983, and served on the editorial boards of the Journal of Bacteriology, the Journal of Applied Biochemistry and Reviews in Infectious Disease.

Before going to the University of Rochester in 1970, he was assistant professor of Pathology at Western Reserve University in Cleveland, Ohio and later associate professor and the professor in the departments of microbiology and experimental pathology at the Scripps Clinic and Research Foundation, La Jolla, California.

Dr. Young attended Union College in Schenectady, New York. He received an M.D. degree cum laude from the University of the State of New York, Upstate Medical Center, Syracuse, in 1956 and a Ph.D. from Western Reserve University in 1962.

In 1956, Dr. Young began his internship at University Hospitals of Western Reserve University and completed his residency there in pathology in 1960.

He is a member of ten scientific societies including the Institute of Medicine of the National Academy of Science and was awarded an honorary doctor of science degree from Roberts Wesleyan College, Rochester, 1983 and from Houghton College in Houghton, New York 1984. Dr. Young has served on more than 24 hospital and medical center committees, the Doctoral Review Council of the State of New York in New York, and delivered many invited lectures at national and international conferences.

Dr. Young has served on NIH advisory committees, including the Recombinant DNA Advisory Committee (1979-80), the Microbiology Training Study Section (1972-73), the Bacteriology and Mycology Study Section (1975-79), and was chairman of the Microbial Genetics Study Section (1981-82). He also was a member of the Scientific Advisory Committee for Virology and Cell Biology Study Section of the American Cancer Society (1974-79).

INTRODUCTION OF ASSOCIATES

Dr. YOUNG. Thank you very much. It is a pleasure to be here, Mr. Chairman. I would like to introduce on my right Mr. Tom Scarlett, our General Counsel. I would also like to introduce Mr. Gerald Meyer, the Associate Commissioner for Management and Operations, and then Mr. Frank Claunts on his left, Director of the Division of Financial Management at FDA.

I will take only a few moments to summarize the statement so that you can have the rest of the time for questioning.

ORPHAN DRUGS PROGRAM

We will discuss and focus on only a few of the issues that are within the testimony. The first is to emphasize the importance of our Orphan Drug Program.

Recognizing the need to stimulate development of drugs for a minority of the population that are afflicted with unusual diseases, the FDA has developed, under your leadership and the leadership of others, an Orphan Drug Program. If you could please put up the chart, Frank Claunts, this will just give a very brief summary over the period of time we have instituted the program.

Basically, you can see in the first line on my right the program dates. The Orphan Drug Act was instituted in the period of January 1 through June 1983. Since that time, there has been a progressive increase in the number of orphan designations.

We also have a number of sponsor commitments that have markedly increased, which is very important, because the transition of sponsor commitments to adopt an orphan, to the production of an orphan drug, is in excess of 50 percent.

We have been pleased with the work, particularly this year, as we have approved seven orphan drugs in 1984. Of these, two of them—pentamidine, which has been important for treating individuals with one of the most important diseases that afflicts patients with AIDS, P. carinii pneumonia; and now maltrexone, a drug for treating drug abusers—have been particularly helpful to the American people.

You can also see that we have a grants program. These grants have been awarded to individuals within the universities throughout the country, and they stimulate investigators to review and to bring forward research on orphan products. Again, we feel that there will be a high conversion of these grants to the production of products.

This grant program differs from that of the National Institutes of Health, as it is much more targeted and much more applied in its orientation.

ANDA/PATENT RESTORATION BILL

Another advance this year is the implementation of the ANDA/Patent Restoration bill. We have now fully staffed that office and are developing the space that will be necessary for this work to occur. We wish to consolidate the ANDA patent restoration activities in a single locus, and feel that this will be of great benefit to the American public, as six of the current top drugs that are now selling will be eligible for ANDA consideration immediately.

The NDA rewrite will enable us to streamline the drug approval process. We trust that by the ability to limit the amount of information that is required to come to FDA on each of these applications, and the use of foreign data and better guidelines for industry, that we might be able to decrease, without compromising the quality of the review, approximately 20 to 25 percent of the time that has been involved in the drug review process. We feel this will be a substantial aid for the American people.

ANTIBIOTICS IN ANIMAL FEED

The issue of antibiotics in feed has been of great concern to this committee and to me as a microbiologist. We held a hearing, a legislative type hearing, earlier this year in response to the November 20, 1984, petition of imminent hazard of the Natural Resource Defense Council.

This hearing gave me the opportunity to listen to the views of approximately 36 people and to ask specifically what the indications were that organisms which were present in animals following the consumption of feed with subtherapeutic concentrations had or did not have any increase in virulence. That was the most seminal question that I believe had to be addressed.

The hearing was of great value. We are now in the process of finalizing our activities, and we will certainly keep you informed as we bring forward the recommendation to the Secretary on the imminent hazard petition.

MONITORING ADVERSE REACTIONS

As part of the FDA's focus on the drug approval process, and in concert with our other initiatives, we will heighten our concern with looking at adverse reactions. The new amendment to the device program has enabled us now to bring forward the mechanism for obtaining information on adverse reactions in medical devices. Under this regulation, 5 days after the device-related death or serious illness, we will be notified, and 15 working days after a device malfunctioned, we should be notified, enabling us to ensure much more safety from devices.

Similarly, we are focusing on adverse reaction to drugs, and we receive approximately 40,000 adverse reactions per year. We are analyzing this and have substantially increased our focus on this activity. We feel it is seminal information in regards to adverse drugs.

SODIUM LABELING

A sodium labeling initiative has been in place for a few years. We are very pleased with the progress to date. At this point, 46 of the 51 processor groups now include some products with quantitative sodium labeling. This is an increase from 40 in 1983. We also feel that with time there will be a decrease in the total sodium content in foods, as manufacturers appear to be working on this at the moment.

PLAN FOR THE FUTURE

I would like to also mention just briefly the action plan that is in response to the Secretary's request to prepare the Agency for the 21st century. We have completed much of the plan now. It is a result of not only the internal review by FDA, but also an analysis by over 50 groups, including industry, consumers, academicians, and professional groups which met with executives at FDA.

We will be bringing forward a 10-point program designed to prepare the Agency for the future. We believe that this is a most important program. We will use, to the best of our ability, our existing budget to move priorities and to be able to implement these very important initiatives.

At the same time, we will not neglect our ongoing activities in the enforcement realm or the education, voluntary compliance, and regulation realms that we are involved in.

MINOR SPECIES

I would now like to spend a few moments on our Minor Species Program in cooperation with the Department of Agriculture. We feel just as orphan drugs are an important issue in human medicine, that there is a need for us to focus on minor species in veterinary medicine. Accordingly, we will be looking at antibiotics and other agents that can be used safely to increase the agricultural productivity within the United States.

We are very pleased with the leadership of Dr. Lester Crawford in the Center for Veterinary Medicine. We have been working with a number of universities and groups throughout the Nation in attempts to bring a focus on minor species. Frequently, the minor species have been neglected, with our focus being on the more traditional species: cattle, hogs, et cetera.

USER FEES

The final point that I would like to mention is one of management. We are very interested in the concept of user fees. In respect to the committee's recommendation that we not implement them in 1985, we have not implemented user fees this year. However, we feel that at this time of substantial fiscal constraint, it is very important for us to continue to explore with you the concept of user fees. Eventually such fees could fund improved communication and facilities for FDA which would enable us to recruit and retain superior personnel.

Mr. Chairman, in view of saving time, I have submitted the rest of the prepared comments for the record, and I would be delighted to answer any questions that I could.

ORPHAN DRUGS RESOURCES

Senator COCHRAN. Thank you very much, Dr. Young. We appreciate your statement and the report that you have given to the committee.

I was interested in your discussion of the Orphan Drug Program—the effort to ensure expeditious handling of applications, and the use of the abbreviated new drug applications. It seems to be a way to go about getting these drugs reviewed and approved in a timely fashion. We compliment you for the work that is being done in that area.

In connection with the funding for this kind of activity, I know that both our committee and the House committee provided in the bills for this fiscal year that not less than $3 million of the appropriated funds should be used for orphan drugs.

What has been the experience of your agency as far as the use of that $3 million is concerned? Is that approximately the amount that will be spent on that program next year, or is more needed for that program?

Dr. YOUNG. Sir, we have used the funds in the categories that I mentioned. Frank Claunts, if you could please put that chart up again for me.

The two areas that we feel are very important are the work that has been done by Dr. Finkel and her staff in obtaining sponsor commitments for drugs and facilitating the review of orphan drugs within the Agency, but similarly important is the new grants program.

During the past year, we have applied $1.4 million to the new grants program, and we do anticipate another $1.5 million in the next year. We were fortunate in the current year in that we will, in addition, have $1 million from one of the institutes of the National Institutes of Health. This has enabled us to increase our grant program.

In the event that we are not able to get additional funds from the National Institutes of Health, we will be forced to use much of the ongoing moneys for continuation grants. That is one of the areas that we remain quite concerned about, because it is important, in my opinion, and in the opinion of the Agency, to be able to stimulate research on orphan products. We intend to be very pro-active, if you would, in trying to bring forward these new products in orphan drugs, as well as increase our approval rates.

Senator COCHRAN. As I understand it, the $1 million that you have received, or will receive, is from the National Institute for Child Health for additional orphan products research?

Dr. YOUNG. Yes, sir, that is a 1-year allocation.

Senator COCHRAN. It is not a recurring thing? Do you think you will get it next year?

Dr. YOUNG. We don't have much confidence that we will get it next year in view of the budget constraints of that institute.

USER FEES

Senator COCHRAN. We understand, too, from your remarks that you would exempt the review of orphan drug applications from user charges.

Dr. YOUNG. Absolutely. We feel that we need to stimulate innovation for orphan products, and it would be counterproductive to have user charges there. However, in the established industry, we feel that user charges not only would be appropriate, but we have reason to believe that they would be supported by the industry.

Senator COCHRAN. The FDA previously opposed fees for new drug applications on the basis that the Agency's activities in this area benefited the general public and not the industry. Is this a change in position?

Dr. YOUNG. I think one of the concerns earlier was: Would user charges be inappropriate when the general public is aided by the approval of new drugs?

We feel that as we have looked at this carefully and have considered some of our interests in the past in this, that it would be important now to be able to swing more toward the view of having those activities that also directly benefit the corporations subject to user charges.

I would like to ask Mr. Meyer to comment on the past activities on user fees to give you the philosophy of the Agency in the years prior to my coming on as Commissioner.

Mr. MEYER. You are correct, Mr. Chairman. In the past, we have struggled with the general user charge law, which talked at some length about public benefit. There were some early court decisions that played a role in that, too.

At the administration's request, we went back and relooked at that, and we believe there is a very credible case for advancing user charges selectively for some of the things we are doing. That is the context in which we are making a proposal this year.

Senator COCHRAN. The General Accounting Office, as you know, investigated this issue at the request of this subcommittee.

Dr. YOUNG. Yes, sir.

Senator COCHRAN. They have finished their review and briefed us—and you as well, as I understand it. What I would like to do in connection with that report is just make it a part of the record at this point and submit some questions to you for the record which you can answer later on, in addition to the comments we have already had from you on it.

[CLERK'S NOTE.—All questions and answers submitted in writing appear following the FDA portion of today's transcript.]

[The GAO report follows:]

GAO Report on Proposed User Fees by the Food and Drug Administration

April 2, 1985

TO : Associate Director, HRD - David P. Baine

Harry R. Van Cleve

FROM : General Counsel - Harry R. Van Cleve

SUBJECT: Proposed User Fees by the Food and Drug Administration (File B-217931-O.M.; Code 108861)

You asked our office to determine whether the Food and Drug Administration (FDA) has the authority under 31 U.S.C. § 9701 (hereafter the "User Charge Statute") to institute user fees for its new drug and antibiotic review and approval activities. This issue stems from a request by the Subcommittee on Agriculture, Rural Development, and Related Agencies, Senate Committee on Appropriations, that GAO examine the impact of FDA's proposed user fees. Among the questions the Subcommittee asked was whether FDA's proposed user fees were authorized under the User Charge Statute, Office of Management and Budget (OMB) Circular No. A-25, and judicial decisions construing the statute.

As discussed below, we conclude that the User Charge Statute, as construed by existing case law, and OMB Circular No. A-25 provide FDA with the discretionary authority to institute user fees for its new drug and antibiotic review and approval activities. Our conclusion herein is consistent with a previous report of the Comptroller General, "Fee Not Charged For Processing Applications For New Drugs," B-164031(2), November 4, 1971, recommending that FDA institute user fees for processing applications for new drugs.

In its fiscal year 1985 budget request, FDA proposed a plan to institute user fees. Under that plan, FDA proposed to initiate a user fee pilot project to recover approximately one-third of its costs for review and approval activities for New Drug Applications (NDAs) and for Abbreviated New Drug Applications (ANDAs). FDA approval of an NDA or ANDA is required before a drug can be introduced or delivered for introduction into interstate commerce under 21 U.S.C. § 355. FDA's plan envisioned that Congress would make available up to $5 million of the revenues generated from these user charges for obligation by FDA in return for a $5 million reduction in FDA's appropriations request. The FDA plan was withdrawn after both the House and Senate appropriations committees expressed their opposition to the plan on the basis that FDA's regulation of new drug approvals provided a clear public benefit.

In their fiscal year 1986 budget proposal, FDA again indicated its intention to institute user charges for new drug and antibiotic review and approval activities. While the full scope of FDA plans have not been fixed as of this writing, we have been informally advised by FDA officials that it would be similar to their fiscal year 1985 proposal.

Discussion:

The User Charge Statute, 31 U.S.C. § 9701 (1982) (formerly 31 U.S.C. § 483a), provides as follows:

> "(a) It is the sense of Congress that each service or thing of value provided by an agency (except a mixed-ownership Government corporation) to a person (except a person on official business of the United States Government) is to be self-sustaining to the extent possible.
>
> "(b) The head of each agency (except a mixed-ownership Government corporation) may prescribe regulations establishing the charge for a service or thing of value provided by the agency. Regulations prescribed by the heads of executive agencies are subject to policies prescribed by the President and shall be as uniform as practicable. Each charge shall be--
>
> (1) fair; and
>
> (2) based on--
>
> (A) the costs to the Government;
>
> (B) the value of the service or thing to the recipient;
>
> (C) public policy or interest served; and
>
> (D) other relevant facts."

On its face, the language of the User Charge Statute lends itself to a very broad interpretation of an agency's discretionary authority to institute user fees. However, a series of Supreme Court and United States Court of Appeals decisions have served to limit an agency's discretion concerning the types of fees which can be instituted and the costs which an agency can legitimately seek to recover through a fee.

In National Cable Television Association, Inc. v. United States, 415 U.S. 336 (1974), and its companion case, Federal Power Commission v. New England Power Co., 415 U.S. 345 (1974), the Supreme Court considered user fee schemes established by the Federal Communications Commission (FCC) and the Federal Power Commission (FPC), respectively, which were designed to recover the full cost of regulating industries under their jurisdiction. In National Cable Television, the Court rejected a user fee designed to recover the FCC's full direct and indirect costs for regulation of community antenna television (CATV) systems. In addition to license fees which were already being charged CATV operators, the FCC had assessed an annual fee against the operators calculated at the rate of 30 cents per subscriber. In FCC's opinion, the fee approximated the "value to the recipient" standard used in the User Charge Statute. In rejecting the FCC fee, the Court premised its opinion on the inherent distinction between a tax, which the Court viewed as a charge intended to produce revenue unrelated to any specific benefit the Government may provide, and a fee, which the Court viewed as a charge for a sepcific benefit. 415 U.S. at 340-341.

In analyzing the role of the FCC and the benefits derived from its regulation both by the CATV operators and by the public, the Court rejected the FCC's attempt to recover its full costs for oversight.

> "There is no doubt that the main function of the Commission is to safeguard the public interest in the broadcasting activities of members of the industry. If assessments are made by the Commission against members of the industry which are sufficient to recoup costs to the Commission for its oversight, the CATV's and other broadcasters would be paying not only for benefits they received but for the protective services rendered the public by the Commission."
>
> 415 U.S. at 341.

The Court viewed the statutory phrase "value to the recipient" as the proper measure of a fee under the User Charge Statute, stating:

> "It is not enough to figure the total cost (direct and indirect) to the Commission for operating a CATV unit of supervision and then to contrive a formula that reimburses the Commission for that amount. Certainly some of the costs inured to the benefit of the public, unless the entire regulatory scheme is a failure, which we refuse to assume."
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> 415 U.S. at 343.

In *Federal Power Commission v. New England Power Co., above*, the Court applied the principles of *National Cable Television* and further defined the scope of the User Charge Statute. In *New England Power*, the Court considered user fees developed by the FPC to recover the full costs of administering regulatory statutes governing electric utilities and gas companies. Under its user fee plan, FPC imposed an annual assessment on all electric utilities under its jurisdiction in order to recover the agency's full direct and indirect costs for administering the Federal Power Act. The remaining costs were assessed against the subject electric utilities in proportion to their wholesale sales and interchange of electricity. A similar charge was imposed against natural gas companies under the Commission's jurisdiction to recover costs of administering natural gas pipeline programs under the Natural Gas Act. These costs were assessed against all natural gas companies under the Commission's jurisdiction with operating revenues of $1 million or more in proportion to their deliveries of gas in interstate commerce.

In striking down the FPC user fee, the Court agreed that "[W]hole industries are not in the category of those who may be assessed, the thrust of the Act reaching only specific charges for specific services to specific individuals or companies." 415 U.S. at 349. The Court expressly adopted the interpretation of the User Charge Statute contained in OMB Circular No. A-25, September 23, 1959. Quoting with approval from the OMB Circular, the Court stated that:

> "[A] reasonable charge 'should be made to each *identifiable recipient* for a measurable unit or amount of Government service or property from which he derives a special benefit.' (Emphasis added.) The circular also states that no charge should be made for services rendered, 'when the identification of the ultimate beneficiary is obscure and the service can be primarily considered as benefitting broadly the general public.'
>
> "We believe that is the proper construction of the Act."
>
> 415 U.S. at 349-351. (Original emphasis.)

Noting that some of the companies which would be assessed charges under the user fee plan had not been parties to proceedings before the Commission during the period they were to be charged for, the Court stated:

> "The 'identifiable recipient' of a unit of service from which 'he derives a special benefit,' to quote the Office of Management and Budget, does not describe members of an industry which have neither asked for nor received the Commission's services during the year in question."
>
> 415 U.S. at 351.

Subsequent decisions by United States Courts of Appeals have applied the analysis of the two Supreme Court opinions to various fact situations. *See National Cable Television Association, Inc. v. Federal Communications Commission, (NCTA)*, 554 F.2d 1094 (D.C. Cir. 1976); *Electronic Industries Association v. Federal Communications Commission*, 554 F.2d 1109 (D.C. Cir. 1976); and *Mississippi Power and Light Co. v. Nuclear Regulatory Commission*, 601 F.2d 223 (5th Cir. 1979), *cert. denied*, 444 U.S. 1102 (1980). In *NCTA* the Court reviewed an FCC user charge which assessed an annual fee on cable television operators designed to recover its costs for processing applications for authority to operate and tariff filings. FCC had determined that 44.6 percent of the time of the bureau regulating cable television operators was spent processing these applications and filings. Accordingly, the fee established by FCC sought to recover 44.6 percent of the total direct and indirect costs of operating its cable television's regulatory bureau costs.

The Court remanded the case to the Commission for clarification of the justification for its fee, explanation of the specific items of direct and indirect expenses which comprise the cost basis of the fee and a reconsideration of the rate at which the fee was assessed. In its analysis of costs which could properly be recovered through a user fee, the Court ruled that when an agency establishes a fee for the special benefit it confers, the agency may only include the direct and indirect costs it incurs in providing that benefit.

In Electronic Industries, above, the Court reviewed a group of FCC user fees which were charged against common carriers and equipment manufacturers. Specifically, FCC had initiated: (1) common carrier applications, filing and grant fees; (2) common carrier tariff filing fees; and (3) equipment type approval, type acceptance and certification fees. In accordance with the principles established in the NCTA case, the Court remanded the case back to the FCC for reconsideration and clarification of the user fee schedule.

In its analysis of the fees proposed by FCC, the Court in Electronic Industries held that a user charge may include the full cost of providing a benefit to the recipient, even though the service provided may incidentally benefit the public as well.[1] 554 F.2d at 1115. The Court explained its holding as follows:

> "This holding effectively disposes of the arguments of petitioners that no fee can be assessed for tariff filings or for equipment testing and approval. Both activities are required by statute, and the FCC is entitled to charge for services which assist a person in complying with his statutory duties. Such services create an independent private benefit. Tariff filings are required by 47 U.S.C. § 203(a) (1970) and provide a means for the carrier to obtain its revenues and to regulate subscriber use of its facilities. Although this statute was enacted in order to protect the public against excessive or unreasonably discriminating or preferential charges, that result is only an incidental benefit from the service which is rendered by the agency, i.e., assisting the carriers in complying with the statute. Similarly, equipment certification, acceptance, and approval is required by 47 U.S.C. § 302a (1970) and 47 C.F.R. § 2.803 (1975), and assists the manufacturer in marketing a quality product and gives him credibility in the market place. Other commission fees at

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[1] The Comptroller General also has ruled that under the User Charge Statute, an agency may recover from a special beneficiary the full costs it incurs in providing a service even if the service incidentally benefits the public. 59 Comp. Gen. 389 (1980); B-201667-O.M., May 5, 1981.

> issue in this case can be justified by the statutory requirement of a permit for construction of new or extended lines or the discontinuance of service by a common carrier, 47 U.S.C. § 214 (1970), and by the requirement of an operating license and station construction permit under 47 U.S.C. §§ 301, 319 (1970)."
>
> 554 F.2d at 1115-1116. (Emphasis added.)

In Mississippi Power and Light Co. v. Nuclear Regulatory Commission, above, the Fifth Circuit Court of Appeals upheld user fees instituted by the Nuclear Regulatory Commission (NRC) designed to recover the full costs of: (1) routine safety inspections to insure a licensee's compliance with the Atomic Energy Act and applicable NRC regulations; (2) environmental reviews required by the National Environmental Policy Act of license applications; and, (3) uncontested hearings for nuclear reactor construction permits including costs of trial staff, as well as administrative and technical support costs. In upholding NRC's authority to assess fees, the Court rejected arguments that the work of the NRC benefits the public solely, that a license or permit obtained by the applicant does not bestow a special benefit and that, therefore, NRC had no authority to assess a fee.

> "We reject such an argument because it ignores the realities of the operation of the nuclear power industry and is inconsistent with the interpretation given the IOAA [the User Charge Statute] by the Supreme Court. In National Cable the Court recognized the authority of the FCC to assess a fee even though 'the main function of the Commission is to safeguard the public interest.' 415 U.S. at 341, 94 S.Ct. at 1149. The Court thus acknowledged the FCC's authority to assess against applicants a fee for services rendered notwithstanding the strong public interest served in providing the service; what the Court found objectionable in the FCC's fee schedule was the agency's attempt to recover the entire cost of regulating."
>
> 601 F.2d at 228. (Emphasis added.)

The court also rejected arguments that NRC's grant of a license provided no benefit to the applicant:

> "A license from the NRC is an absolute prerequisite to operating a nuclear facility, and as such, is a benefit 'not shared by other members of society.' Aside from the benefit of being able to operate a business, however, the petitioners are recipients of other benefits flowing from the grant of a license or permit. One such benefit is the limitation on liability afforded by the Price-Anderson Act, 42

> U.S.C.A. § 2210, a boon which almost all licensees are entitled to receive. Moreover, we feel quite certain that the routine inspections conducted by the NRC could uncover hazardous conditions which, if allowed to continue, would jeopardize the safe operation of a licensee's facility. In short, we are not impressed by the petitioners' argument that they receive no benefit from the conferral of an NRC license. Even so, to accept petitioners' argument would mean that no federal agency could assess any fees, since all public agencies are constituted in the public interest. We therefore hold that the NRC has full authority to assess fees against applicants."
>
> 601 F.2d at 228-229.

The Court in Mississippi Power also dismissed arguments that the NRC was required to exclude from recoverable costs that portion of the agency service which represents the benefit to the public. Consistent with Electronic Industries, the Court concluded that when a special service is provided to a private beneficiary, the agency may set a fee to recover the full cost of providing that service regardless of whether the service may also incidentally benefit the public. The Court further concluded that there was no need to allocate the costs of providing the service between the beneficiary and the public. 601 F.2d at 229. See also, New England Power Co. v. Nuclear Regulatory Commission, 683 F.2d 12 (1st Cir. 1982) (upholding NRC's authority to charge user fees for review work on applications for license to operate a nuclear facility, even where that application is voluntarily withdrawn prior to final determination or where the final determination results in a denial of the application.); B-201667-O.M., May 5, 1981.

Analysis:

Based on the foregoing review of judicial decisions interpreting the User Charge Statute, we think the salient legal issue is whether the FDA review and approval activities at issue here bestow a special Government benefit or service to specific identifiable recipients. This statement of the issue reflects as well the policy of OMB Circular No. A-25, September 23, 1959, that a user fee can be imposed "[w]here a service (or privilege) provides special benefits to an identifiable recipient above and beyond those which accrue to the public at large." Based on our analysis of the User Charge Statute and existing case law, we conclude that the FDA's review and approval activities would qualify for the imposition of a user fee.

FDA's user fee proposal seeks to impose charges to recover a portion of the cost for its new drug and antibiotic review and approval activities. Under the Food, Drug, and Cosmetic Act, 21 U.S.C. § 355(a), no person shall introduce or deliver for introduction into interstate commerce any new drug unless FDA has approved an application with respect to that drug. Failure to obtain FDA approval prior to marketing a new drug in interstate commerce could result in civil and criminal sanctions. See 21 U.S.C. §§ 331-334. Thus, in order for a new drug to be legally marketed, FDA approval of a new drug application must first be obtained.[2] FDA's approval of such an application is based on a review of scientific studies demonstrating the drug's safety and effectiveness. 21 U.S.C. § 355(b),(d). The same requirements apply to FDA's review of antibiotic drugs.

There is little doubt that the FDA review and approval activities relate to an identifiable recipient, namely, the applicant for new drug approval. See Federal Power Commission v. New England Power, above. The more difficult issue is whether the FDA review and approval activities bestow a special benefit or service above and beyond the benefits which accrue to the public. In this regard, OMB Circular No. A-25 provides several examples of services which would support user fees. For example, services which enable the beneficiary to obtain more immediate gains or values other than those which accrue to the general public (e.g., receiving a patent, crop insurance, or a license to carry on a specific business) are appropriate for user fees. Another example is services which provide business stablity or assure public confidence in the business activity of the beneficiary (e.g., certificates of necessity and convenience for airline routes, or safety inspections of craft).[3]

We think the "special benefit" test is met here. First, just as the NRC license in Mississippi Power was a prerequisite to operation and hence the granting of such license a special benefit, FDA's approval is a prerequisite to marketing a new drug or antibiotic--a clear benefit to the manufacturer. See, OMB Circular A-25, above. Since FDA approval also serves to provide public confidence in the safety and effectiveness of the product, such FDA approval would appear to satisfy the business stability/public confidence category described in the Circular and recognized in the case law discussed above. Accordingly, we would maintain that such a required approval prior to the marketing of a new drug or antibiotic is a special benefit which constitutes a "service or thing of value" to the applicant not shared by other members of society which can legitimately be subject to user charges. See e.g., NCTA, 554 F.2d at 1101-1102; Mississippi Power, 601 F.2d at 228-229.

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[2] FDA has serveral different types of new drug and antibiotic application review and approval procedures: review and evaluation of new drug applications; paper new drug applications; abbreviated new drug applications; and full and abbreviated antibiotic marketing applications. However, for each of these types of administrative action, final FDA approval under 21 U.S.C. § 355 is required before the drug or antibiotic can be legally marketed.

[3] It should be noted that the Circular used the licensing of new biological products as an illustration of services which should not be charged for because, "the identification of the ultimate beneficiary is obscure and the service can be primarily considered as benefiting broadly the general public." However, in January 1966, the Deputy Director of the Bureau of the Budget sent a letter to the Assistant Secretary of HEW recommending user charges be instituted for several activities conducted by FDA including the processing of new drug applications. Since that time OMB has repeatedly suggested that user charges be instituted for processing new drug applications.

This is not to say that FDA's new drug and antibiotic review and approval responsibilities do not provide a significant public benefit. However, as recognized by existing case law, the existence of a concurrent public benefit does not preclude the imposition of user fees. In National Cable Television, 415 U.S. at 341, the Supreme Court specifically recognized that the main function of the FCC was to safeguard the public interest in broadcasting. Indeed, the Court refused to assume that such regulatory schemes do not provide some benefit to the public. 415 U.S. at 343. Yet despite this recognition, the Court accepted FCC's authority to institute user fees so long as the FCC's fee was consistent with the Court's interpretation of the statute's "value to the recipient" standard. 415 U.S. at 341-343.

Similar results were reached in Electronic Industries and Mississippi Power. As noted earlier, both Courts of Appeals expressly rejected arguments that the public interest in the activities subject to the user fees was so strong that it was unfair to assess their cost against private parties. The Court in Electronic Industries explained the language in National Cable Television which suggested that an agency could not charge fees that would recover expenditures made to safeguard the public interests as follows:

> "It is clear that under [National Cable Television] expenditures made to benefit the public are required to be excluded from a proper fee. 415 U.S. at 341-43. But the Court has not held that no fee can be assessed in situations which partially benefit the public. To the contrary, it explicitly recognized that 'some of the costs [of the FCC regulation of the cable television industry] inured to the benefit of the public, unless the entire regulatory scheme is a failure, which we refuse to assume,' 415 U.S. at 343, but held that a fee related to costs could still be assessed against the private recipient so long as it was measured by a 'value to the recipient' standard and the cost of providing public benefits was excluded. 415 U.S. at 342-44."
>
> 554 F.2d at 1113 (Parallel citations omitted.)

In Mississippi Power, 601 F.2d at 228, the court also rejected arguments that because of the strong public benefit from the NRC's regulation of nuclear facilities user fees for licensing, safety inspections and environmental studies should not be charged. The Court recognized that "'public safety is the first, last, and a permanent consideration in any decision on the issuance of a construction permit or license to operate a nuclear facility.'" 601 F.2d at 228. However, the Court read the User Charge Statute and the Supreme Court's decision in National Cable Television as authorizing user fees to be assessed "notwithstanding the strong public interest served in providing the service."

While an agency may not charge the recipient of a special benefit for the costs the agency incurs for providing an independent benefit to the general public, a user fee may include the full cost of providing a benefit to the recipient, even though the service provided may benefit the public as well. Electronic Industries, 554 F.2d 1109 (D.C. Cir. 1976); Mississippi Power, 601 F.2d 223 (5th Cir. 1979). FDA's user fee plan included in its fiscal year 1985 budget proposal did not contemplate recovery of all costs connected with its new drug and antibiotic review and approval activities. Instead FDA estimated full direct and indirect costs for its new drug and antibiotic review program, excluding items which they believed were undertaken principally for the public benefit, at $14.9 million. FDA's proposed plan excludes the costs of reviewing and evaluating investigational new drugs (drugs used primarily for testing and research) and drugs designated as "orphan drugs' under the Orphan Drug Act, Pub. L. No. 97-414, January 4, 1983, 96 Stat. 2049, 21 U.S.C. §§ 360aa-360ee, (drugs developed to treat rare diseases or conditions). FDA estimated that their proposed fees would be able to generate approximately $5 million annually, or about one-third of their actual cost of these services. Clearly, the problem faced by the Supreme Court in National Cable Television and New England Power, where the FCC and the FPC attempted to recover the entire cost of their regulatory program from user fees, was not presented by the FDA proposal.

In summary, we believe that FDA has the discretionary authority under 31 U.S.C. § 9701 to institute user fees for new drug and antibiotic review and approval activities as described in their fiscal year 1985 budget proposal. Such a fee is consistent with the general policy guidance in OMB Circular No. A-25, September 23, 1959, that fees should be charged for services which provide special benefits to an identifiable recipient above and beyond those which accrue to the public at large. This finding is also consistent with our conclusion in a previous report of the Comptroller General, "Fees Not Charged For Processing Applications For New Drugs," B-164031(2), November 4, 1971, in which we recommended that FDA institute user fees for processing applications for new drugs.

SULFITING AGENTS

Senator COCHRAN. Our full committee chairman, Senator Hatfield, has brought to my attention a matter of concern to him. It involves the use of sulfiting agents and some problems that have developed. He has had this brought to his attention by constituents. I want to submit a question or two to you on his behalf for the record concerning this issue.

[CLERK'S NOTE.—All questions and answers submitted in writing appear following the FDA portion of today's transcript.]

You might be interested in commenting at this point about what your reaction to this is. As I understand it, persons, particularly who have asthma problems, are susceptible to reactions to sulfite-treated foods.

Does the FDA intend to take any actions, in addition to what may have already been done, to address the problems related to the use of sulfites? You might let us know what your position is in this regard.

Dr. Young. Surely. I personally am very concerned about this, Mr. Chairman, as I have a food allergy myself, one to crab. I can tell you that those who have a food allergy are very concerned with the amounts of food they eat that could be harmful.

In the case of sulfites, the issue is one of unfair and unfortunate. It is very unfortunate when an individual is allergic to a substance, particularly in Maryland to crabs, as I am. It is unfair if you can't detect that the substance is present in a food that you are about to eat. That is applicable in the case of sulfites.

We are looking at three major initiatives.

We have dealt with the first initiative. It is a proposed regulation to declare the use of sulfites in packaged foods. Packaged foods account for approximately 15 to 20 percent of the adverse reactions that have been identified so far.

The second area of concern is one in drugs. We are looking at ways to identify sulfites in drugs and to be sure that individuals who may be taking prescription medicines or OTC medicines would know of the sulfite content. We have been very pleased with the voluntary compliance to date on this, both by the Pharmaceutical Manufacturing Association [PMA], and the professional organization that primarily deals with OTC drugs, the PA.

However, the most important issue, and I am sure Senator Hatfield would be concerned, is that of the use of sulfites in salad bars and on fresh fruits and vegetables. We are reviewing very carefully our options in this particular issue.

In 1983, we began to explore whether or not it is generally recognized as safe, or GRAS, to use sulfites in fresh foods. Sulfites have been used for about 2,500 years. Therefore, it is important that any action we take concerning the status of sulfites on what is called the GRAS list be on a sound scientific basis. For that reason, in 1984 we asked the Federation of American Societies for Experimental Biology [FASEB] to evaluate the available information on the safety of sulfites.

We had a report on this in January. We are now exploring very actively how we should meet it. We have been in touch with the States in very early 1982, 1983 and requested the States to voluntarily follow some of the recommendations we brought forward.

Just yesterday I was talking to Dr. Gebby in the State of Oregon as to followup on the very tragic case that occurred there, and also the success of their State program. We intend to act vigorously in exploring our options for this and in finding the most effective way to protect the American public.

Senator Cochran. Thank you very much.

I have some other questions, but I think at this point I will reserve those and recognize Senator Burdick, our erstwhile senior member on the other side of the aisle. [Laughter.]

SALMONELLA IN MILK

Senator **Burdick**. Thank you, mister erstwhile chairman. [Laughter.]

I got up early this morning, as usual, and got the first news. Apparently some of our milk products out in the West are contaminated by salmonella.

Dr. **Young**. Yes, sir.

Senator **Burdick**. Is that related to this problem in some way?

Dr. **Young**. No; it is not. I have the report on that, sir. Essentially, there is a problem in one of the dairies in Illinois. There are currently 302 documented cases of salmonella believed to be associated with a particular 2-percent milk product. It is a product that is fortified with Vitamin A and Vitamin D. We believe that the contamination may have been introduced after pasteurization. It is an important outbreak. FDA investigators and CDC investigators are working closely with the State of Illinois to figure out the cause of the contamination.

Regretfully, the majority of the individuals stricken are below the age of 10; some are only 4 or 5 years old. That is not uncommon. The highly sensitive population is usually the older population and the very young population.

This is a classic example of a salmonella outbreak. One of the reasons that pasteurization is monitored so closely is to be sure salmonella is wiped out in the milk supply. This contamination appeared to be after pasteurization, and somehow was introduced into a large lot.

Senator **Burdick**. We really don't know.

Dr. **Young**. No; we really do not know how it was introduced. We believe that about 450,000 pounds of this product were processed. We are trying to find out the exact nature of how the infection occurred. We will not know for a few days.

USER FEES

Senator **Burdick**. Dr. Young, user fees seem to be the administration's method for cutting the budget in many agencies. We have heard it before in other areas. You propose to use them to recover the full cost of new drug applications and abbreviated new drug application reviews.

I am not so sure this proposal is a bad idea, although I reserve judgment on it. In fact, the drug manufacturers do not indicate a strong opposition to this proposal.

However, your proposal calls for retaining only the first $5 million brought in by user fees, with the remainder to go to the Treasury. How much money over the $5 million do you expect to take in?

Dr. **Young**. At least $10 million over the $5 million.

Senator **Burdick**. I am not sure it is a good idea to charge these people for a service and then give the money away to the Treasury Department.

Dr. **Young**. In concert with what you said, if this is acceptable to go toward user fees, at some point in the future, I envision a greater recovery, if you will, which would allow some of the use of these funds for the capital needs of FDA.

I should emphasize that in the long run, we are not looking to fund a substantial portion of employees' salaries with user fees. I envision in the future a program designed to allow fees collected to be used to increase the equipment that is necessary to improve our drug review process and to remodel some desperately needed facilities to enable us to do our business better and to attract people to the Agency.

So it would be a capital use, not principally a use for staff salaries. We hope in these times of very difficult budgets that we could in the future alleviate the additional burden on the Treasury, and use these funds to meet capital needs and only use these funds in the drug review area.

Senator BURDICK. I think you just about answered my next question, but I will ask it anyway. Would it be possible and a better idea to use these user fees in enhancing and improving the FDA review mechanisms and procedures?

Dr. YOUNG. Yes; that is exactly what we would like to do with them at some point in the future, sir. We feel that some of the difficulties we face—such as with equipment for word processing, electronic communication around the Agency, the way we handle these new drug applications—could be helped by such resources. When I came on, I was deeply impressed with the applications sometimes being 150,000 pages. If you could imagine, sir, wading through that amount of paper, it is a great difficulty. We therefore did the NDA rewrite. We are now looking toward electronic ways in which we can better handle that information. That needs a capital expense we would hope to obtain in the future through user fees.

Senator BURDICK. I hope that is true because a lot of people won't look very kindly upon this as some kind of a revenue measure to help balance the budget or something. As long as it is related to the problem you have.

Dr. YOUNG. That is right. Our proposal in the future would be to specifically relate it to the new drug approval process, the ANDA process, and to reequip some desperately needed facilities.

ORPHAN DRUGS RESOURCES

Senator BURDICK. I am very interested in your work on orphan drugs and commend you for the progress you have made so far. What is the total amount of money intended to be used in 1985 for orphan drugs and how much is proposed under the 1986 budget?

Dr. YOUNG. Let me ask Mr. Meyer to give you those exact figures. Then I would like to address a little bit further the research issue.

Mr. MEYER. Mr. Chairman, in the current year we plan to utilize $3 million for orphan drugs.

Mr. Claunts corrects me. That is $3 million from our own budget and $1 million that has been made available to us from the National Institutes of Health. It was appropriated for the National Institute of Child Health and Human Development last year and the general intent was that it be turned over to us. In the coming year, we anticipate spending $3 million. We do not know that we will have the same $1 million from NIH again in the coming year.

Dr. YOUNG. Frank Claunts, could you please put the chart up again, because I do want to focus on the research issue.

As an investigator, sir, I would like to just mention the difference between our research program here and the need for this research activity.

Unlike the National Institutes of Health, which primarily support basic research, research here is targeted very heavily toward the identification of orphan products, research on them, that would enable us to evaluate these products, and then lead to the eventual commercialization which would bring this to a population that needs these orphan drugs.

We have a limit of an available population of 200,000 people that would be able to use the drug. That is the definition of an orphan product. So it is in many instances not commercially feasible for these drugs to go forward.

Similarly, the companies frequently feel it is inappropriate to put their research dollars into these important orphan products. You can see the listing of the research grants. It costs approximately $80,000 to $100,000 per research grant per year, in the average research program over the Nation. They are either somewhat less or somewhat more, depending on the product.

It is important to emphasize that, although we have awarded the 19 grants, if we do have a diminution in the $1 million funds, we will have to use much of our money for continuation of the current grants rather than the installation of new grants. Many of the diseases that will be treated by recombinant DNA and some other therapies, and some of the cancer therapies, often fall into the orphan category, particularly, as I mentioned, with one of the products used to treat an infectious disease following AIDS. We feel this research grant program is a very important aspect of the orphan drug development.

Senator BURDICK. Mr. Chairman, is that chart made part of the record?

Dr. YOUNG. We will enter that with the footnotes I have applied.

Senator COCHRAN. That would be helpful. Thank you.

[The information follows:]

ORPHAN DRUGS AND MEDICAL DEVICES

	Program	Orphan Designations	Sponsor Commitments	Drug and Device Marketing Applications Submitted		Exclusivity Approval Applications	Grant Applications Funded
				Submitted	Approved		
	5/82 - 12/82	0	14	(13)4*	2	0	0
Orphan Drug Act ⟶	1/83 - 6/83	0	3	5	2	0	0
	7/83 - 12/83	1	3	5	5	0	12
	1/84 - 6/84	16	5	3	2	1	0
Act Amended ⟶	7/84 - 12/84	23	3	6	5	6	7
	1/85 - Present	15	3	2	1	10	0

* 4 submitted between 5/82 - 12/82
9 submitted before 5/82

HOW THE FUNDS ARE USED

Senator BURDICK. I think you have answered most of this last question, but I will ask it again in case we didn't get it all.

Dr. YOUNG. Yes, sir.

Senator BURDICK. How is the money used? Is it used mostly for research and development of those drugs, or also for the manufacture of such drugs?

Dr. YOUNG. No; it is not used at all for the manufacture of drugs. It is used in two areas.

One, it is used for the office which seeks to identify orphan drugs, to get commitments from manufacturers to bring forward applications, and to oversee the application review process as it is done within other branches of the FDA.

The second portion is the drug research grant that I described.

Then there is also a Center on Orphan Drugs, so the public can get information about orphan drugs, and we can make information available as early as possible to physicians in order that these orphan drug products might be able to be used for treatment of people even before the actual approval of the drug itself.

ANTIBIOTICS IN ANIMAL FEEDS

Senator BURDICK. I noted your testimony regarding the use of human antibiotics in animal feeds. I appreciate your special concern for this substantial problem.

My concern relates to the timeliness of dealing with the situation. The Natural Resources Defense Council petitioned Secretary Heckler last November to declare the uses of certain antibiotics in animal feeds an imminent hazard to the public health.

You held a hearing in January. You intend to make a recommendation and petition sometime later in the spring.

Dr. YOUNG. Yes.

Senator BURDICK. What is taking you so long to act on this petition? Exactly when this spring do you expect to make a recommendation? Can you speed up the process?

Dr. YOUNG. We feel that our recommendation will be available for the Secretary in the middle of April. Because of the very important concerns raised here, and its impact both medically and economically, we felt that we needed to do this in a very thoughtful fashion as far as reviewing the vast amount of material that came in.

I also, sir, asked a number of questions at the hearing to gather particular information on whether or not the organism that is within the intestinal tract of the animal that may have a higher incidence of antibiotic resistance is any more harmful to human beings.

That was very helpful to me in the evaluation, because one of the most important issues, as I have been trying to work with the Center on this—and Dr. Lester Crawford is here, who can answer further questions, if you wish—is to determine whether the organisms that are increased in their antibiotic resistance are any more harmful to mankind.

We had evidence on both sides of that question, but there was no direct evidence with salmonella, which you mentioned earlier, in the milk supply. Thus, we have to very, very carefully look at this issue to determine if we are making the right recommendation to the Secretary.

We are confident, though, that we will finish this in April, and that it should be resolved within the summer or early fall by the Secretary's office.

RAW MILK

Senator BURDICK. You recently announced that you would not ban the interstate sales of beverage raw milk.

Dr. YOUNG. Yes, sir.

Senator BURDICK. Some groups apparently look upon this decision as evidence that there is no public health threat from unpasteurized milk. Isn't there overwhelming evidence there is a public health threat, and does the FDA intend to pursue this issue further?

Dr. YOUNG. In the letter that I sent to Dr. Wolfe, I emphasized two things that directly relate to that question. First, I emphasized that in the medical judgment gathered in the testimony, it was clear that the consumption of certified raw milk does present a public health hazard. It is also clear from the testimony that there is no large benefit, or, in fact, any significant benefit, that I could identify from drinking and consuming certified raw milk.

There was some testimony that said that it might be a bit higher in value of some of the vitamins and some of the other enzyme constituents, but on balance the difference was 10 to 20 percent.

The real issue was what to do when a product was in interstate sales at the average of about 3 percent. Ninety-seven percent of the problem was in the State which was involved.

We felt that it was much more important to state the two problems—the public health issue and the no substantial benefit issue—and have the States deal with this rather than have the Federal Government focus on merely a 3-percent problem in interstate.

The point you made very early and importantly on the problem in the State of Illinois indicates very clearly that milk can be contaminated in a variety of ways, here again by salmonella. It is this partnership between the State and Federal Government we feel is important.

We will work very closely with the State of California to make sure our opinions are known, but we felt to ban the interstate commerce, when the problem is only a 3-percent problem, would be inappropriate.

Senator BURDICK. Thank you.

Dr. YOUNG. Thank you.

ANTIBIOTICS IN ANIMAL FEED

Senator COCHRAN. Dr. Young, I understand that the National Academy of Sciences has suggested some additional studies in connection with the issue of antibiotics in animal feeds, and that the Animal Health Institute has initiated these studies, but they aren't complete and will not be available until probably the fall of the year.

Dr. YOUNG. Yes, sir.

Senator COCHRAN. Does this mean you will probably make a decision and a recommendation without the benefit of these studies being done in response to the suggestion of the National Academy of Sciences?

Dr. YOUNG. Dr. Crawford and I are in close contact with the organizations that are carrying on this research. We had some information in the hearing, and we will certainly check prior to our final decision as to the state of the research. Also, when the research is completed, we will certainly put it in the documented record of the hearing.

We do feel that by keeping in close touch with all of the individuals supplying information, we should be able to reach a reasoned decision for the Secretary based on the information we have. However, if there is overwhelming information that does come in, in response to Mr. Burdick's question, we may need to defer a bit and let a little more time go by. But we do feel we should be able to make a decision soon.

Senator COCHRAN. Thank you very much. We appreciate your responsiveness to our committee.

RAW MILK

Senator BURDICK. I have just one short question—just a little addition here about an area we were exploring.

Is there a problem, do you think, that occurs between the Federal jurisdiction and the State jurisdiction? For example, would the inaction by FDA contribute to the State's inaction?

Dr. YOUNG. This is a difficult question, sir. We do not think that it will have a major, or even significant, adverse action on the State. We will transmit very clearly our recommendations on the public health issues and the benefits, and we will be in contact with the State officials and urge them to look at this and to take appropriate action.

The total number of cases associated with the certified raw milk are approximately 100. You can see that, even with pasteurized milk, one has to be careful to be sure that good sanitation takes place.

Over the years we have used the States as the primary enforcement organizations. We have a good Federal-State relationship. We believe that our advice to the State will be adequate.

Senator BURDICK. I am just getting at some of the problems we have. There is a little basketball game going on.

Dr. YOUNG. Yes, sir.

Senator BURDICK. You try to put that ball in one court, will you?

Dr. YOUNG. I will try, and keep putting the pressure on it.

SUBMITTED QUESTIONS

Senator COCHRAN. Thank you very much, Dr. Young, for you and your associates being here this morning. We have other questions, which we will submit for the record.

Dr. YOUNG. Thank you very much.

[The following questions were not asked at the hearing but were submitted for response for the record:]

QUESTIONS SUBMITTED BY SENATOR COCHRAN

User Charges

QUESTION: Does FDA know whether its current policy is consistent with other Federal agencies who have responsibility for approving products for marketing such as EPA for pesticides?

ANSWER: We have not determined the policies on user charges of other agencies with similar responsibilities. We can tell you, however, that our proposal for user charges is consistent with existing law. On that score, we are confident. There have been consistent GAO opinions issued over the years, including one which has just been issued in response to a request from this Subcommittee, which clearly state that FDA has the legal authority to assess user charges for new drug approval activities. Each Agency's decision about whether or not to use available statutory authority to assess user charges is complex and intertwined with a variety of issues, such as the nature of the industry that is regulated, the environment in which that industry operates, and a number of other factors. Even within FDA, we have assessed charges for some of our activities for many years under special statutes -- those associated with color certification and insulin certification. We also assessed charges for our antibiotic certification activities for many years, up until the time those activities were discontinued at the end of FY 1982.

QUESTION: When does FDA expect to issue proposed regulations for new drug application fees?

ANSWER: We hope that proposed regulations for user charges for new drug applications will be issued within the next two or three months. Ideally, if these regulations are to be effective by October 1 of this year, we would like to see proposed regulations published on or before the first of June.

QUESTION: What is the basis and rationale for FDA's request to use $5 million of the fees collected rather than depositing the full amount collected in the Treasury?

ANSWER: The President's 1986 Budget proposes that, although we estimate that we would collect at least $15 million in user charges during FY 1986, we will keep only $5 million of those collections, with the balance going to the general receipts of the Treasury. This plan was originally conceived so that the effect of the user charge collections on FDA would be revenue neutral. That is, the Administration reduced its request for appropriated funds for FDA by $5 million, and had this amount offset by letting the Agency keep $5 million of user fees collected. It is our view that, over time, the user charge program may evolve to the point that most of the revenues collected may be retained by FDA for program enhancements for those activities which generated the user charge revenues.

QUESTION: Will FDA proceed with establishing charges if revenues cannot be credited to your appropriations account?

ANSWER: We are optimistic and hopeful that over the long term, approval will be provided for crediting user charge collections for FDA use. We believe a strong case can be made for such an arrangement, and we hope that the information provided in the hearing and for the record will be persuasive.

QUESTION: What are your plans for establishing charges for other regulatory activities, such as application approvals for medical devices and manufacturer inspections?

ANSWER: We regard the application of user charges to our new drug approval activities as a pilot project. We would like to gain some experience with the application of user charges to new drug approval activities before we expand the program. The rationale for applying user charges to other product approval activities, however, such as medical devices or food additive petitions, is the same as the rationale for applying user charges to new drug approval. For this reason, we believe it is likely that, if our pilot project with user charges for new drug approvals is successfully implemented, we will expand user charges to these other areas.

The question of applying user charges to inspections of manufacturers, however, raises some different issues. It is questionable whether the agency would try to expand user charges to these activities, at least under the authority of the user charge statute.

QUESTION: Why has FDA changed its position not to initially pursue this on a pilot basis?

ANSWER: The position of the Agency has changed for a variety of reasons. First, this Administration is committed to applying user charges in a variety of situations wherever there is a clearly identifiable beneficiary of government services who receives benefits above and beyond those that accrue to the public at large. The Administration is committed to this both as a matter of equity and as one means of trying to reduce the massive Federal deficit. In response to this policy direction, we asked General Counsel to evaluate the legislative history and court cases of the user charge statute, and we have been advised by the Counsel that, based on this assessment, the imposition of user charges to our new drug approval activities is legally defensible. Further, we believe that, since the drug manufacturers receive a substantial economic benefit from an FDA decision to approve one of their new drug applications, it is only fair that they should pay for the cost of FDA new drug approval activities. This is both fair and appropriate in the current environment and concern about the size of our growing Federal deficit.

QUESTION: Do the number of applications received in any one year vary significantly and how will this impact on the fees to be charged? Do you anticipate changing the fees frequently to reflect such variances?

ANSWER: The number of applications received in any one year can vary, but we do not believe this variance is significant. Because there has been some variance, however, we will probably base our fee estimates on the average new drug applications received over the past five or six years. We also hope to avoid having to change the fees frequently, and may do this by having an automatic cost adjustment built into the fees that are initially set. We will be breaking new ground in this effort, so it is possible that we may need to go back and reassess the manner in which fees are calculated and to make changes.

QUESTION: Will exceptions to paying the fee for NDAs and ANDAs be given to any particular drug application sponsor and, if so, to which kinds and why?

ANSWER: We plan to exclude designated orphan drugs from the fees we will propose to collect. We are doing this because, in keeping with the spirit of the Orphan Drug Act, we don't want to add any disincentives to anyone's efforts to get orphan products approved and on the market. For any designated orphan product, there is very low expectation of profitability from the marketing of the drug. For this reason, assessing a user charge would not seem equitable. For all other products, however, sponsors generally anticipate marketing a product that will produce significant profits for them. For this reason, designated orphan products are the only category of exemption that the agency is currently contemplating.

Industry Reaction to User Fees

QUESTION: Do you expect the drug industry to exert pressure on FDA to improve the time it takes to approve drugs for marketing in view of the fees they will be paying and what impact will this have on your primary mission to protect consumers from unsafe or ineffective drug products?

ANSWER: The drug industry already exerts pressure on FDA to improve the time it takes to approve drugs for marketing. This is not a new concern to them. We expect this concern will continue, whether or not they pay user charges for the new drug applications they submit to the agency. We do not expect that FDA's response to this pressure will be any different in the future when we are collecting user charges than it is at the present time. We share the industry's desire to be able to move expeditiously to approve deserving new products and get them on the marketplace quickly. The assessment of user charges, however, will in no way cause the Agency to alter the current rigorous standards of safety and effectiveness that must be met before any drug product can be approved.

QUESTION: What impact will the new regulations for processing new drug applications have in meeting service expectations from the drug industry if fees are charged?

ANSWER: The new regulations for processing new drug applications (i.e., the "NDA Rewrite") are not related to the user fee proposal. The NDA Rewrite was designed to streamline the new drug application review process, and the user fee proposal is designed to recover the costs of the Government's drug review services that provide a clear and identifiable economic private benefit to the drug manufacturers above and beyond the benefits accruing to the general public.

QUESTION: Does the User Charge Statute or OMB Circular A-25 provide authority for an agency to exempt firms from fees if it could result in such firms being severely harmed economically or put out of business? If so, what size firm (volume of business) do you believe should be exempted from user fees? Will this be incorporated in your proposed regulations?

ANSWER: After looking at the regulated industry and the potential amount of fees the agency might collect from individual sponsors, we still believe that the fees we propose to collect represent a small fraction of a firm's overall cost in bringing a drug to the marketplace. Accordingly, we do not believe that the fees which the agency will propose will severely harm or put out of business any firm successfully involved in the manufacture of drug products.

Reduction of the Sodium Content of Processed Food

QUESTION: What steps is FDA taking to monitor the food industry's attempt to reduce the sodium content of FDA-regulated processed foods on a voluntary basis?

ANSWER: FDA continues to monitor the sodium content of foods in typical U.S. diets through the Total Diet Study. This provides a measure of changes in sodium content that may occur in current food products. Through the Food Labeling and Packaging Survey (FLAPS) we maintain a data base on the relative position of ingredients in ingredient lists for foods (which is indicative of order of predominance by weight) and we monitor sodium content labeling on FDA-regulated packaged processed foods. Our continuing communications with members of the food industry have allowed us to monitor the introduction of new foods with reduced sodium content. Our field program on nutrition labeling allows us to spot check the nutrient content, including sodium, of foods for comparison with label claims.

QUESTION: Since your voluntary program has been in effect, what percentage of FDA-regulated foods have shown reductions in their sodium content?

ANSWER: FDA does not continuously monitor the sodium content of all foods under its jurisdiction. Thus it is not possible to respond directly to this question. Our Total Diet Study suggests that there has been little change in the sodium content of the specific traditional foods collected for the survey. On the other hand, our FLAPS and communications with industry have revealed that there has been a significant increase in sodium content information available to consumers. Also, data received from the A. C. Neilsen Company indicate that a significant number of new foods with lower sodium content has been introduced. It will be another three to five years before the Total Diet Study diet can be revised (based on USDA and National Center for Health Statistics surveys to be performed) to reflect changes in the foods available in the food supply. At that time, sodium analyses will better reflect the impact of our sodium program.

QUESTION: What is your benchmark for measuring the relative success of your voluntary plan? At what point will you stand ready to proceed with mandatory sodium reductions?

ANSWER: FDA still maintains the view expressed in the Federal Register of April 18, 1984 (49 FR 15527) that it would be unwise to establish specific goals for reduction of the sodium level in the overall food supply. The Agency's concern continues to be the total sodium level in the individual diet. The number of foods in our food supply is very large and the intake of these foods by individual consumers is extremely varied. A single level as a goal for sodium reduction in the overall food supply, therefore, would not address the Agency's major concern. Because salt and other sodium-containing compounds are used for a number of technical effects in many foods, often simultaneously providing multiple effects in a single food, setting individual product goals would be an exceptionally difficult, if not impossible, task.

Additionally, the public cannot be viewed as a passive component of the process involved in bringing about a reduction of sodium levels in foods. If the public expresses a concern about sodium levels in an active way, such as by buying foods for which sodium content appears on the label or for which a lowered sodium content is declared, industry will respond by making available more products which have a lowered sodium content. Therefore, our sodium reduction efforts are linked to our sodium labeling and sodium education efforts. The overall sodium program is a complex undertaking which seeks to bring about changes in diets and lifestyles of many in the American public. Such changes cannot be mandated or legislated but must be accomplished through education and persuasion, which will necessarily be a gradual process.

As explained above, FDA is continuing to monitor developments in the marketplace through the use of a comprehensive monitoring program. However, we believe that any conclusion that our voluntary approach to sodium reduction has not been successful is premature. We do not believe that an alternative such as mandatory sodium reduction is necessary, or feasible, at this time. We will keep the Committee informed of progress in this area.

QUESTION: According to a recent study done by the Center for Science in the Public Interest, the sodium content of most processed foods has not changed significantly over the last year. In fact, the sodium content in some of the foods they studied actually rose during the preceding year. Do you have any response to the CSPI figures?

ANSWER: The Agency has reviewed the CSPI data carefully, and we plan to respond to the Center in writing. The information submitted was interesting, but we would have been pleased, if not surprised, to have seen more positive results. We do not believe that the study accurately reflects the degree of sodium reduction in the food supply or the degree of sodium reduction possible in individual diets. For example, the design of the study was such that recently introduced, sodium-lowered products were not considered. These products enable consumers who want to modify the sodium content of their diets an opportunity to do so. Also, the introduction of so many sodium-modified products since the inception of the Agency's sodium program must be considered as an indication that the food industry is making serious efforts to reduce the sodium content of processed foods.

Finally, mandatory sodium reduction in processed foods would be a significant regulatory initiative. The study submitted by CSPI is certainly not comprehensive or determinitive enough to justify such an initiative. There are many questions, such as appropriate sample sizes, representative foods, typical diets, and frequencies of consumption, which must be addressed in order to obtain a valid measurement of progress in the extent of reduction of sodium in processed foods.

Administering Fee Collections

QUESTION: Have FDA estimates on the cost and effort to administer user charge fees for new drug applications significantly changed since your FY 1985 budget proposal?

ANSWER: Our estimates of these costs and the effort to administer user charges have not changed significantly since our 1985 budget proposal. The cost and effort associated with administering user charges for new drug applications will be a function of the complexity of the fee schedule that we finally implement. It is our intention to propose a relatively simple fee structure, one that we believe is most equitable in the long run to all potential sponsors of new drug applications and abbreviated new drug applications, and one that is also relatively simple to administer.

QUESTION: Will the costs of collecting fees be included in the fees to be charged?

ANSWER: In our initial proposal we have not included any estimates for the cost of collecting the fees to be charged. It is likely, however, when we publish a final regulation, that we will make a slight adjustment to the fees at that point in order to be able to recoup any incremental costs that the agency will incur associated with implementing the user charge system.

ANTIBIOTICS IN ANIMAL FEEDS

QUESTION: I am told that in November 1984, the National Resources Defense Council (NRDC) petitioned Secretary Heckler to immediately suspend approval of the subtherapeutic use of penicillin and tetracyclines in animal feed on the grounds that their continued use posed an imminent hazard to public health. In January, FDA held a day-long hearing on this petition. When can a decision be expected from Secretary Heckler?

ANSWER: We cannot predict when the Secretary will make a decision, which she must do in this case because imminent hazard decisions are a non-delegable authority. However, we are hopeful a decision on the petition can be published by this Fall.

QUESTION: What was the general opinion of those experts who presented testimony at the hearing?

ANSWER: At this hearing a wide range of views were presented by 36 individuals, representing a broad spectrum of interests. The opinion was fairly evenly divided between those in favor vs. those against the petition.

QUESTION: What is FDA's timetable for the completion of its review of scientific data concerning the proposed withdrawal of approvals for low-level use of penicillin and tetracyclines in animal feeds?

ANSWER: FDA's review of the overall issue will continue through calendar year 85 with a recommendation to the Commissioner scheduled for sometime in early calendar year 1986.

QUESTION: We understand that FDA has some newly generated data available to it which will fill in the gaps in the scientific position. Could you please make this information available for the record?

[The information follows:]

ANTIBIOTICS IN ANIMAL FEED

SUMMARY OF RECENT RESEARCH

March 22, 1985

In 1980, the National Academy of Sciences (NAS) Committee studying the issue of antibiotics in animal feeds concluded that existing data had neither proven nor disproven the postulated hazards to human health from using subtherapeutic antimicrobials in animal feeds. As a result of the NAS report, the House Appropriations Committee directed the Food and Drug Administration, via the FY 1981 Appropriations Report, to conduct epidemiological research relevant to health issues regarding the use of low levels of antibiotics in animal feed. Two studies were conducted in response to this Congressional directive; one was conducted under a contract by the Seattle-King County Department of Public Health (contract 223-81-7041), and the other was conducted under an interagency agreement by the Centers for Disease Control (IAG 224-81-7093).

The purpose of this report is to summarize the results of these two epidemiological studies. This report also includes a discussion of the results of five other contracts or interagency agreements, two internal projects conducted under the antibiotics in animal feeds program in the Center for Veterinary Medicine, and a review of some recently published papers relevant to the issues.

This report covers the following FDA sponsored studies:

1. Contract 223-77-7032, Colorado State University
2. Contract 223-80-7052, University of Missouri
3. Contract 223-79-7050, Public Health Research Institute of the City of New York
4. Contract 223-79-7055, University of Alabama in Birmingham
5. Contract 223-79-7060, Peter Bent Brigham Hospital, Boston Massachusetts (Now called Brigham and Women's Hospital)
6. Contract 223-81-7041, Seattle-King County Department of Public Health
7. Interagency Agreement 224-81-7093, Centers for Disease Control
8. Interagency Agreement 224-84-7020, Veterans Administration Hospital, Seattle, Washington
9. Cooperative study between FDA and the National Institute of Allergy and Infectious Diseases, National Institutes of Health
10. FDA Project DVMR 222, Center for Veterinary Medicine

More detailed summaries of studies one through seven above are appended.

The safety issues surrounding low level use of antibiotics in animal feeds encompass a complex series of biological events. These include the selection of drug resistant strains of bacteria in animals by antibiotic containing feed, the movement of these bacteria through the environment and food chains to people and other animals, the transfer of genetic resistance determinants between bacteria at various points, and the combining of several resistance traits in a single strain, thus leading to drug resistant bacterial pathogens which have drawn on the mobile pool of genetic resistance determinants found in animals, the environment, food chain and people. The FDA sponsored research addresses certain elements of this complex melieu.

A three-year survey (contract 223-77-7032) of drug resistant bacteria in healthy broilers, swine and beef cattle on randomly selected U.S. farms showed that more than 96% of the gram negative enteric bacteria (primarily Escherichia coli) and 99% of the gram positive enteric bacteria (mostly streptococci) were resistant to at least one drug. Most of the bacteria were resistant to several antibiotics. Resistance to streptomycin (STM) sulfonamide (SU) and tetracycline (TET) was the most common pattern among the gram negative bacteria, and resistance to cephalothin, lincomycin, methicillin, SU, and TET was the most common pattern among streptococci. The frequency of resistance to some drugs was less than 1%. There was farm to farm variation in the proportion of bacterial strains resistant to certain antibiotics, and cattle tended to carry fewer strains that were resistant to the more prevalent antibiotic resistances. A more limited survey of resistant bacteria in healthy turkeys (DVMR 222) produced results similar to those found in the larger study of broilers, swine, and beef cattle.

The final report from Contract 223-77-7032 revealed that Salmonella were found on 7% and 9% of the farms surveyed in 1980 and 1981; none were found in 1979, and none of the farms were positive for two consecutive years. The same study showed that 20% to 57% of fecal samples collected from swine at slaughtering plants had Salmonella. Eighty percent or more of the Salmonella were drug resistant.

Under Contract 223-80-7052 drug resistance was surveyed among certain bacterial pathogens that were isolated from broilers, turkeys, swine, veal calves, and beef cattle in the central U.S. The bacterial pathogens studied were Escherichia coli (E. coli), Salmonella spp. and Pasteurella spp. A high proportion (80% or more) of E. coli and Salmonella spp. were rather uniformly resistant to sulfonamide, streptomycin, and tetracycline, except Salmonella choleraesuis which was more susceptible to tetracycline. A high proportion (80% or more) of Pasteurella spp. also were rather consistently resistant to sulfonamide and streptomycin, but they were more variable in their susceptibility to tetracycline. Occurrence of resistance to other drugs was rather variable from very low to very high depending on the pathogen and the animal from which it was isolated.

In the farm survey (Contract 223-77-7032) strains of E. coli, streptococci and staphylococci were collected from randomly selected animals. Some of these bacterial strains were then tested for their plasmid characteristics under Contracts 223-79-7050 and 223-79-7055 and compared to those isolated from people. The studies showed that these bacteria frequently carried multiple plasmids and R-plasmids (plasmids which mediate antimicrobial resistance). Some frequently occurring R-plasmids from E. coli, streptococci, and staphylococci isolated from animals were indistinguishable for R-plasmids isolated from human pathogens. Other plasmids commonly found among gram-negative human pathogens were not found among the animal isolates.

The feeding of tylosin to pigs (100 grams/ton of feed) resulted in an increase in the occurrence of erythromycin-resistant streptococci in the gut and staphylococci on the skin and in the nose of pigs. The resistance was transferable in vitro. In vivo transfer of MLS resistance (resistance to macrolide, lincosamide and streptogramin B type antibiotics) occurred in the pigs. A strain of MLS-resistant Staphylococcus common in the pigs colonized one of their caretakers.

More detailed analysis of the MLS resistance phenotype in streptococci and staphylococci showed that some MLS carrying plasmids from animals and people were indistinguishable, and others were distinctly different. In a cooperative study between the Center for Veterinary Medicine and the National Institutes of Health, analysis of transposons mediating MLS resistance among streptococci isolated from animals and human clinical material and analysis of the erythromycin resistance determinant within the transposons showed that the DNA sequences involved are very closely related, if not identical. In contract 223-79-7050, homology was demonstrated between MLS bearing plasmids in streptococci and staphylococci.

With Contract 223-79-7060, *Salmonella*, which were associated with cases of salmonellosis in humans or *animals*, were collected from several reference laboratories and subjected to susceptibility testing and plasmid analysis. The same strain of *Salmonella newport* (*S. newport*) was isolated from 13 unrelated human *cases of salmonellosis from* Wisconsin and 2 cases from swine in Nebraska as determined by plasmid characteristics and other features. The same kind of plasmid analysis showed that the same strain of *Salmonella dublin* (*S. dublin*) infected cattle from six states and two *people in California*. Additional work with *Salmonella typhimurium* var *copenhagen*, *S. newport* and *S. dublin* *indicated that plasmids mediating certain resistance patterns* have similar restriction profiles which may be useful in determining their epidemiological relationship, especially among sporadic cases that appear to be unrelated.

The Centers for Disease Control (CDC) investigated 52 outbreaks involving nontyphoidal *Salmonella* in the 13 years, 1971-1983 (Science, 225: 833-835, 1984). *The source of Salmonella* was identified in 38 of these outbreaks. Food animals (poultry, *dairy cattle*, and beef cattle) were identified as the source in 18 of the 38 outbreaks. Drug resistant *Salmonella* from animals were involved in 11 of 16 outbreaks caused by *resistant strains*, and drug susceptible strains from animals were involved in 6 of the 13 outbreaks caused by susceptible strains. Drug susceptibility was known for 29 of the outbreaks. The death rate in outbreaks involving drug resistant strains was higher than death rates for strains attributed to drug susceptible strains or strains with unknown susceptiblity.

A more in-depth study of a recent outbreak caused by a multiply resistant strain of *S. newport* was recently reported by the Centers for Disease Control (*The New England* Journal of Medicine, 311:617-621, 1984). The strain of *S. newport* was resistant to ampicillin, carbenicillin, and *tetracycline*. Eighteen people in four midwestern states were infected with this organism including one fatal nosocomial infection. Eleven of the cases had taken penicillin or a pencillin derivative during the few days before onset of salmonellosis, and eleven cases were hospitalized. Plasmid features were distinct from all but one of over 160 *S. newport* strains isolated from humans and animals during the 18 *months preceding* the outbreak. The one animal isolate identical to the strain involved in the human cases was recovered from a dairy herd adjacent to a beef herd which had been slaughtered. The timing and geographic distribution of the human infections coincided with the slaughter and distribution of the beef herd. The humans had either received their meat directly from this herd or had purchased it from supermarkets apparently supplied with meat from the herd. In response to the 1981 Congressional directive, two epidemiological studies were conducted to obtain a better understanding of the flow of bacteria through the meat supply to people. The models selected for these studies were *Salmonella* and *Campylobacter*. In the study conducted in the Seattle, *Washington area* (Contract *223-81-7041*), meat products, primarily chicken, beef, turkey, and pork products, were surveyed for *Campylobacter* and *Salmonella*. The isolates of these bacteria collected from *the meat products were* compared to the *Campylobacter* and *Salmonella* that were isolated from patients that belonged to a 320,000 member health maintenance organization. Questionnaire data were collected from culture positive cases as well as control subjects in order to identify sources of infection.

A total of 1785 meat samples were cultured over 20 months. Twenty-two percent of retail chicken samples and 47% of samples collected at the poultry processor had Campylobacter. Salmonella was found in 4 to 5% of the poultry products. Other types of meat had negligible levels of Campylobacter. There was seasonal variation for poultry samples positive for Campylobacter with the highest frequencies occurring in July, August, September, and October, which coincided with the seasonal incidence of human Campylobacter cases.

There were 225 index Campylobacter cases investigated and 526 people were interviewed as controls for these cases. Seventy-two index Salmonella cases were investigated. The highest incidence rates for both infections were in children under one year old; however, there was also a peak in incidence for Campylobacter infection in people of ages 20 to 39 years.

Isolates collected from cases, their environments and household contacts were compared to the isolates obtained from meat samples by using results from biochemical identification, antibiotic susceptibility testing, and serotyping. Results of plasmid analysis were included for Campylobacter isolates. From the 679 Campylobacter isolates, there were 66 clusters of two or more isolates of Campylobacter where there was 100% agreement of test results. Twenty-one of these clusters had isolates from both meat and human sources. The remaining clusters consisted of isolates collected from only meat samples or only from human cases and their household contacts and other items. Eight of the mixed clusters included isolates from more than one index case from different households; whereas, the other 11 mixed clusters involved isolates from one index case plus one or more meat samples.

Based on 222 Salmonella isolates, there were 31 clusters of two or more Salmonella isolates where all the features were the same. Fourteen of these clusters had isolates from both human and meat sources; the others included isolates only from meats or only from human sources. The largest mixed cluster was composed of 31 isolates of Salmonella typhimurium. Salmonella from a broader range of sources in the Seattle, Washington area, than were studied under contract 223-81-7041, were investigated under interagency agreement 224-84-7020. Many similarities were found among Salmonella isolated from food sources of animal origin and those isolated from human infections. There were similar rates of plasmid carriage, number of plasmids per isolate, antibiotic resistance patterns and R factors. One strain of Salmonella enteritidis, prominent in the Seattle-King County area, has a stable 52 kilobase plasmid.

Through administration of questionnaires to people who had cases of campylobacteriosis and people who served as controls, data were collected for numerous possible risk factors for campylobacteriosis. Among the variety of risk factors, the contractor identified exposure to chicken as the largest risk factor. There were several other items identified as lesser risk factors. The contractor also reported that 48% of the cases of campylobacteriosis were associated with exposure to chicken. These data have not been completely analyzed and reviewed by the FDA. However, this qualitative and quantitative information will be significant and important if they are substantiated.

The Centers for Disease Control studied Campylobacter isolated from people with campylobacteriosis and from retail chicken, beef, and pork in Dubuque, Iowa for 12 months (Interagency Agreement 224-81-7093). They also investigated the Campylobacter cases, case-household family members and their animals, and control subjects via questionnaire. The consumption of raw milk was the only significant risk factor associated with the 46 cases of Campylobacter infection that were investigated. In 1080 chicken carcasses that were sampled, 360 (33.3%) were cultured positive for Campylobacter in either the body cavity or giblet. None of the 514 pork samples and one of the 520 beef samples were positive.

In summary, the studies reviewed above show the following:

1. There is a high frequency of resistance to certain antibiotics in bacteria isolated from healthy and diseased farm animals. The frequency of resistance to other antibiotics remains quite low.

2. R-plasmids from bacteria isolated from animals are indistinguishable from those in bacteria isolated from people. This was found for E. coli, streptococci, staphylococci, and Salmonella.

3. Salmonella causing disease in animals were indistinguishable from the same Salmonella serotype causing disease in people by methods more specific than serotyping and antibiotic resistance profiles.

4. Salmonella and Campylobacter found in meat (primarily poultry) are indistinguishable from the same bacteria isolated from human clinical specimens in the same community.

All of the studies supported by the Center for Veterinary Medicine that are associated with the multitude of antibiotics-in-animal-feeds issues are now complete. The Center for Veterinary Medicine is evaluating the results of all of these studies in conjunction with other relevant data. With a situation as complex as this, one study does not necessarily stand alone. This point was made in the final report of the study conducted by the National Academy of Sciences where it was concluded that it was not feasible to conduct one comprehensive and all encompassing study. The FDA will form a position on low level use of penicillin and the tetracyclines in animal feeds through a thorough review of all relevant studies.

SUMMARY OF INTERAGENCY AGREEMENT 224-81-7093

Title: Epidemiology Study of Campylobacter jejuni Infections in Dubuque, Iowa

Study conducted by the Centers for Disease Control

Purpose: The purpose of this study was to define the epidemiology of human Campylobacter jejuni (C. jejuni) enteritis in Dubuque, Iowa

Study Design: The major components of the study design were:

1. Surveillance of human C. jejuni enteritis cases detected in Dubuque, Iowa and culture of human and animal contacts of these cases as a means of identifying potential sources of infection.

2. Surveillance of chicken, pork, and beef samples from retail markets to detect contamination by C. jejuni.

3. Laboratory determination of antimicrobial susceptibility and serotype as epidemiologic markers to compare human and meat isolates of C. jejuni.

4. A case-control study to identify specific risk factors associated with human C. jejuni enteritis.

Results: Human Case Surveillance: Cases of C. jejuni enteritis occurring in Dubuque, Iowa were identified through positive stool cultures at the laboratory of the major hospital in Dubuque. Over a one year period, 53 cases (5% of patients cultured) were identified. During the same period, 18 cases of salmonellosis (2% of patients cultured) and 3 cases of shigellosis (.4% of patients cultured) were detected. C. jejuni cases showed a seasonal variation with a peak in incidence in June through September. Incidence appeared to be higher in the younger age groups, with 21 of 46 cases (46%) occurring in children under 10 years of age. This, however, may be a reflection of a tendency to obtain cultures from children with diarrhea more often than from adults with diarrhea, rather than a true difference in incidence.

For some C. jejuni case households, cultures were obtained from family members, pets, farm animals, well water and/or raw milk. The raw milk samples from all seven case households tested were negative for C. jejuni as were the well water samples from the 12 households tested. Eleven of 91 family members (12%) from 33 case households were positive for C. jejuni, with siblings being the most frequently positive group. Thirty-one of 121 animals (26%) from 21 households also had positive cultures, and chicken and swine were most often infected.

Food Surveillance: Food surveillance of chicken, pork, and beef samples from seven retail food stores and 12 smaller grocers in Dubuque was conducted over the same one year period. Three hundred and sixty of 1080 chicken samples (33%) were contaminated with C. jejuni. C. jejuni was detected in one of 520 beef samples and none of 514 pork samples. A seasonal variation in C. jejuni isolation from chicken products, similar to that seen in human cases, was found, with the highest contamination rates in June through September.

Microbiology: The antimicrobial susceptibility patterns of C. jejuni isolated from 28 humans and 29 poultry samples were similar, as shown in Table I. A high frequency of resistance to tetracycline was seen in both groups of isolates. None of the isolates were resistant to amikacin, gentamicin, erythromycin, or chloramphenicol. Only two (7%) of the human isolates and none of the poultry isolates were resistant to clindamycin. All of the isolates were resistant to trimethoprim-sulfamethoxazole.

TABLE I
ANTIBIOTIC RESISTANCE IN C. JEJUNI ISOLATES

Percentage of Isolates Resistant

	Tetracycline	Penicillin	Ampicillin
Human Isolates (28)*	64	14	11
Poultry Isolates (29)*	69	14	14

* Number of isolates tested.

A wide variety of Penner serotypes were found among the 32 human and 85 poultry isolates tested, but no distinct pattern of serotypes was seen. In five of eight households where isolates from both the case and a family member were serotyped, the same serotype was found. In five of eight households where isolates from the case and an animal were serotyped, the isolates were of the same serotype. In one household, serotype 35 was found in the case, in a family member, and in three cows. The same serotype was isolated from the cases and from the cows belonging to the households in five raw milk associated cases (see Case Control Study) where a cow isolate was serotyped.

Case Control Study: Forty-six of the *C. jejuni* cases and 92 controls were included in the case control study. The controls were matched with the cases on the basis of geographic location, age, and sex. Cases and controls were interviewed to determine demographic and geographic factors; contact with pets and farm animals; consumption of poultry, beef, pork, raw milk or raw milk products, and raw vegetables; type of water exposure; illness of family members; and food preparation and handwashing practices. Consumption of raw milk was the only factor found to be associated with increased risk of *C. jejuni* enteritis. The cases who had consumed raw milk were more often younger (under 10 years of age) and more often had rural residences than other cases. However, these observations may be related to the possible selection bias towards younger patients in recruitment of cases for the study and to different patterns of raw milk consumption in different geographic areas.

Summary:

In this study, *C. jejuni* contamination was found to be common in retail poultry products whereas it was virtually non-existent in pork and beef. Although *C. jejuni* isolates with the same serotype and susceptibility patterns were found in human cases and in retail poultry products and were isolated from these sources with the same seasonal variability, no association by examination of questionnaire data obtained in the case/control part of the study between chicken consumption and increased risk of *C. jejuni* enteritis in this population was found.

Epidemiological investigation of human case and control subjects by questionnaire showed that consumption of raw milk was the only factor associated with increased risk of human *C. jejuni* infection. Strains with the same serotype as cases were isolated from cows belonging to the case households. However, *C. jejuni* infection was not isolated from any of the few raw milk samples tested. Based on the limited data available, a link between raw milk consumption and *C. jejuni* enteritis could not be more firmly established.

SUMMARY OF CONTRACT 223-77-7032

Title: Data Base for Drug Resistant Bacteria

Principal Investigators: Drs. Diane Fagerberg and Carey Quarles

Contractor: Colorado State University

Purpose: This project was conducted to determine the frequency of drug resistance characteristics in fecal coliforms and streptococci in broilers, swine and beef cattle on U.S. farms so there would be a baseline for assessing the effect of any changes in regulations.

Study Design: A survey of certain antibiotic resistant enteric bacteria that occurred in healthy broilers, swine, and beef cattle on U.S. farms was conducted for three years. Fecal samples were collected from animals on randomly selected farms from the five or six states that produced the majority of the particular animal species (usually different states for each animal species). Sixty-five farms (30 swine, 20 broiler, and 15 beef cattle farms) were sampled in 1979, and 85 were tested in 1980 and 1981. Those sampled in 1980 and 1981 included the original set plus 10 additional broiler farms and 10 additional beef cattle farms. The survey also included swine sampled at 10 randomly selected swine slaughter plants each year. Control groups of broilers and swine were also maintained by the contractor and studied throughout the three-year period. Over 14,000 coliforms and streptococci were isolated, identified and tested for their susceptibility to several antimicrobial drugs. All fecal samples were tested for the presence of Salmonella.

Results:

Almost 95% of all coliforms (defined here as isolates picked from MacConkey agar) were identified as *Escherichia coli* (*E. coli*). The frequency of resistance to each drug in the coliforms isolated from animals on farms is given in the following table:

TABLE I

Percent of Coliform Isolates Resistant to:

Animal Group	Number of Isolates Tested	AMI	AMP	CAR	CAP	GEN	KAN	STM	SU	TET
Broilers	1569	<.1	8	8	1	3	38	96	83	87
Cattle	1255	.2	7	9	7	.2	2	21	77	46
Swine	2583	.2	29	28	.7	.3	18	79	90	92

Antibiotics - AMI- amikacin, AMP - ampicillin, CAR - carbenicillin, CAP - chloramphenicol, GEN - gentamicin, KAN - kanamycin, STM - streptomycin, SU - sulfonamide, TET - tetracycline.

Resistance to STM, SU, and TET occurred most frequently; whereas, AMI, CAM, and GEN had the lowest frequencies of resistance. A lower proportion of isolates obtained from beef cattle were resistant to KAN, STM, or TET.

Of all coliforms isolated from the field, 3.6% had no resistance. Over 96% were resistant to at least one drug. No resistance was found in 13.4% of cattle isolates, and 45% of cattle isolates had multiple resistance (resistance to 2 or more drugs); whereas 85% to 96% of the isolates from swine and broilers had multiple resistance. The most common pattern of resistance for all isolates was resistance to STM, SU, and TET. The modal pattern for cattle and breeder animals in the control unit was single resistance to SU.

Transfer of resistance was observed for 27% of all coliforms tested for transfer by the single method used to detect transfer. Transfer of resistance was detected most often with coliforms isolated from field broilers (45%) and least often with isolates obtained from cattle (20%).

Most of the streptococci belonged to Lancefield group D. The percent of streptococci isolated from animals on farms that were resistant to each drug is summarized as follows:

TABLE II

		Percent of Streptococci Resistant to:									
Animal Group	Number of Isolates Tested	AMP	CEPH	CAP	ERY	LIN	MET	PEN	SU	TET	VAN
Broilers	1304	.3	79	8	61	98	94	37	91	94	1
Cattle	918	.1	80	21	24	88	97	2	98	91	6
Swine	1514	1	38	14	63	79	76	20	86	92	1

Antibiotics - AMP - ampicillin, CEPH - cephalothin, CAP - chloramphenicol, ERY - erythromycin, LIN - lincomycin, MET - methocillin, PEN - penicillin, SU - sulfonamide, TET - tetracycline, VAN - vancomycin.

Eighty-two percent of the streptococci were resistant to four or more antimicrobial drugs. The most common pattern of resistance was resistance to CEPH, LIN, MET, SU, and TET.

Since the swine and broiler breeding stock maintained by the contractor received feed to which an antibiotic was not added, the effect of maintaining these animals on nonmedicated feed was examined. Some of the more notable trends observed in coliform isolates were that where the proportion of strains resistant to a particular drug was relatively high at the beginning of the study, there was usually a consistent decreasing trend in the percent of resistant strains. This was noted for resistance to STM, SU, and TET in coliforms isolated from broilers, and for resistance to AMP, STM, SU, or TET among the coliforms isolated from swine.

This same trend was not as consistent for the various drug resistances among the steptococci. A high proportion of strains isolated from swine were resistant to AMP, CEPH, LIN, SU, or TET, yet a consistent decrease was noted only for resistance to AMP, CEPH, and LIN. A consistent decreasing trend in proportion of resistant strains was not noted among strains isolated from broilers.

The decrease in proportion of resistant strains was, where noted, usually consistent, yet the total change may not be biologically significant. It may only be an indication of a trend.

Salmonellae were not isolated from any of 65 swine, cattle, or broiler farms sampled in 1979; however, they were isolated from 7% and 9% of the 85 farms that were tested in 1980 and 1981, respectively. This means that 16% of the 85 farms included in 1980 and 1981 were positive for salmonella in one of these two years, and none were positive for both years. In contrast, salmonellae were detected at 50%, 70%, and 50% of the 10 swine slaughtering plants sampled in 1979, 1980, and 1981 respectively. Since samples were collected from swine from three producers each time a slaughtering plant was tested, animals from 30 producers were tested each year. In 1979, 1980, and 1981, samples positive for salmonella were collected from 20%, 57%, and 37% of the producers, respectively. For animals maintained by the contractor, salmonellae were isolated from swine breeding stock, their progeny, and broiler breeding stock on several occasions. In 1979, all salmonellae isolated were resistant to one or more drugs; whereas, 79% and 86% were resistant to one or more drugs in 1980 and 1981, respectively.

Numerous serotypes were isolated from the various groups of animals. The most common serotypes recovered are summarized below:

Farm swine: *Salmonella bredeney*

Salmonella derby

Swine at slaughter plants: *Salmonella derby*

Broilers: *Salmonella schwarzengrund*

Salmonella heidelberg

Cattle: *Salmonella anatum*

In summary, a high proportion (80% or more) of gram-negative bacteria (primarily *E. coli*) and gram-positive bacteria (primarily streptococci) isolated from the feces of healthy broilers, swine, and beef cattle on randomly selected U.S. farms and swine at swine slaughtering plants have multiple antibiotic resistance. The frequency of resistance to some antibiotics is lower among isolates from beef cattle than broilers or swine. Resistance to other antibiotics remains relatively low (<1%) overall with higher frequencies on sporadic farms. There is a low, shifting, and somewhat persistent background of *Salmonella* carriers among animals on farms, and the carrier rate is higher in swine that have been transported to slaughtering plants.

SUMMARY OF CONTRACT 223-81-7041

Title: Surveillance of the Flow of Salmonella and Campylobacter in a Community

Contractor: Seattle-King County Department of Public Health

Principal Investigator: Charles M. Nolan, M.D.

Purpose: The purpose of this project was to study the relationship between the occurrence of *Salmonella* species (spp.) and *Campylobacter* in foods of animal origin and the occurrence of human illness caused by these organisms. (*Campylobacter* surveillance detected *Campylobacter jejuni* (*C. jejuni*) and *Escherichia coli* (*E. coli*)).

Study Design: The four components of the study design were:

1. Surveillance of human cases of *Salmonella* and *Campylobacter* enteritis occurring in a defined population.

2. Surveillance of foods derived from animal products to detect contamination by Salmonella and Campylobacter.

3. Laboratory examination of Salmonella and Campylobacter isolates for certain microbiological markers, including serotype, antimicrobial susceptibility pattern, and plasmid profile, which could be used to trace the flow of these organisms between animals and humans.

4. A case-control study to identify specific risk factors associated with human Campylobacter enteritis.

Results:

Human Case Surveillance: Human case surveillance of Salmonella and Campylobacter enteritis was conducted over an 18 month period among enrollees of a 320,000 member health maintenance organization in King County, Washington. A total of 292 cases of Campylobacter enteritis and 105 cases of salmonellosis were reported. The number of Salmonella cases reported is probably an underestimation of the true incidence in this population. During the first eight months of the study, only four serotypes of Salmonella (anatum, choleraesuis, dublin, and typhimurium), were included, as provided in the contract agreement. After this time, all serotypes of Salmonella were included. In addition, some strains with unusual biochemical characteristics may have been overlooked with the standard methodology used to screen cultures for Salmonella.

The highest incidence for both infections was in children under one year old. There was a second peak in incidence for Campylobacter infection in adults between the ages of 20 and 39 years. Seasonal variation in the occurrence of Campylobacter cases was found, with a peak in incidence in the summer-fall months.

Food Surveillance: A total of 1785 meat and poultry processor samples were examined over a 20 month period in the food surveillance of retail meat outlets in King County and a poultry processor in Seattle. The results of this surveillance are summarized in Table I. The highest levels of contamination with Campylobacter or Salmonella were found in samples from the poultry processor and in poultry products from retail outlets. However, Campylobacter was found significantly more often than Salmonella in these samples. The contamination levels for Salmonella reported here are probably lower than the true contamination levels for the reasons cited above for the number of human cases. There was seasonal variation in isolation of Campylobacter from poultry samples with the highest frequency in July, August, September, and October. This was similar to the seasonal variation seen for Campylobacter cases.

TABLE I

RESULTS OF FOOD SURVEILLANCE FOR CAMPYLOBACTER AND SALMONELLA SPP

Type of	Number Tested	Percentage of Samples Positive for:		
		Campylobacter	Sal. spp.	Both* Sample
Poultry processor	297	47	5	10
Retail poultry	862	22	4	.8
Retail Beef	230	.4	0	0
Retail Turkey	168	.6	1	1
Retail Pork	149	0	3	.7
Retail Lamb	37	0	0	0
Retail Game Hen	29	14	0	3
Retail Rabbit	9	0	0	0
Retail Duck	3	0	0	0
Retail Goose	1	0	0	0
Total	1785	19	3	2

* Both C. jejuni and Salmonella spp. were isolated.

Microbiology: A variety of serotypes were found among the Salmonella isolates. Salmonella typhimurium and Salmonella heidelberg were the first and second most common serotypes found among both human and food sample isolates.

The susceptibility patterns of Salmonella isolates from human cases and contacts and from food surveillance samples were similar. However, as shown in Table II, resistance to streptomycin (STM), tetracycline (TET), or trimethoprim-sulfamethoxazole (SXT) was more frequent among food surveillance isolates, whereas resistance to ampicillin (AMP) or chloramphenicol (CAP) was more frequent in human isolates.

TABLE II

ANTIBIOTIC RESISTANCE IN SALMONELLA ISOLATES

Percentage of Isolates Resistant to:

	AMP	CAP	STM	SXT	TET
Human Isolates (114)*	7	6	2	1	12
Food Surveillance Isolates (76)*	1	0	13	7	17

* Number of Isolates Tested.

A wide variety of Lior and Penner serotypes were found among the human and food surveillance isolates of Campylobacter with many isolates reacting in more than one of each type of antiserum. Analysis of Lior serotypes of 525 isolates revealed that the most common serotypes found among human and food isolates were very similar, with serotype 36 being the most common in both groups.

The antimicrobial susceptibility patterns of Campylobacter isolates from humans and from food surveillance samples were quite similar, as shown in Table III. Resistance to tetracycline was the most common resistance found in both types of isolates.

TABLE III

ANTIBIOTIC RESISTANCE IN CAMPYLOBACTER ISOLATES

	Percentage of Isolates Resistant to:				
	AMP	CAP	ERY**	STM	TET
Human Isolates (276)*	8	0	.7	8	30
Food Surveillance Isolates (368)*	5	0	3	11	22

* Number of Isolates Tested.
** Erythromycin

Six hundred and sixty-one Campylobacter isolates were screened for plasmids. Two hundred and twelve (32%) were found to carry one or more plasmids. Although there appeared to be no plasmid type common to all isolates, several endonuclease restriction fragments of the plasmids were found to be highly conserved. A strong correlation was found between tetracycline resistance and plasmid carriage. Of 158 tetracycline resistant isolates, 147 (93%) were found to carry one or more plasmids. Conjugation studies showed that 30 of 31 plasmid-containing isolates were able to transfer tetracycline resistance.

The similarity of human and food surveillance isolates of Salmonella and of Campylobacter was confirmed by the results of cluster analyses performed using the results for biochemical tests, serotyping data, antibiotic susceptibility pattern (includes both Kirby Bauer zone sizes and minimum inhibitory concentration (MIC) determinations), and plasmid profiles.

For 222 Salmonella isolates, 31 groups, or clusters, containing two or more isolates were formed at 100% similarity, i.e., the isolates within these groups were identical for all the microbiological features included in the analysis. Fourteen of these groups were composed of both human isolates and meat isolates from food surveillance. The remaining groups contained only human or only meat isolates. Several of the mixed clusters had human isolates from different households. The largest mixed cluster was composed of 31 isolates of Salmonella typhimurium.

For 679 Campylobacter isolates, 66 clusters with two or more isolates were formed at 100% similarity. Twenty-one of these groups had both human and meat isolates, with many containing human isolates from different households. The other 45 groups of Campylobacter isolates were composed of only meat isolates or only isolates from cases, contacts, and case household items. In many of these latter groups, isolates represented different case households.

The relationship between tetracycline resistance and plasmid carriage in Campylobacter isolates was also seen in the results of cluster analysis. Among the 66 clusters of identical Campylobacter isolates, tetracycline resistance and plasmid carriage were found together in 13 groups. Both features were absent in 52 groups, and only one cluster of two strains had plasmids but showed no resistance to tetracycline.

Case Control Study: Two hundred twenty-five Campylobacter cases detected during human case surveillance and 526 controls selected from the study population were interviewed to determine demographic and geographic factors; food, water, travel, animal, and other exposure factors; and illness in household and non-household contacts. Based on the contractor's analysis of the questionnaire data, they reported that increased risk of Campylobacter enteritis was associated with the consumption of chicken. The epidemiologic questionnaire data from this study have not been completely reviewed and analyzed by the FDA. Further review and analysis of the questionnaire data collected in this study may allow the information presented in this summary to be refined, expanded, or allow additional conclusions to be made.

Conclusions: The association between consumption of chicken and increased risk of Campylobacter enteritis reported by the contractor, was consistent with the high level of Campylobacter contamination found in poultry samples. The seasonal variability in isolation of Campylobacter from poultry was similar to that seen in human cases. Campylobacter isolates identical in all of the microbiological features examined were recovered from both human cases and poultry products.

Although Campylobacter was frequently isolated from poultry samples, it was rarely recovered from other meat products. Salmonella spp. were isolated less frequently from meat samples. However, Salmonella isolates identical in all microbiological features were found in both human cases and meat samples.

Summary of Contract 223-80-7052

Title: The Occurrence of Drug Resistance (RS) and the Spectrum of Drug Resistance in Pathogenic Bacteria of Food Animals

Principal Investigator: Dr. Lloyd Selby

Contractor: College of Veterinary Medicine
University of Missouri
Columbia, Missouri 65211

Purpose: The primary objective on this contract was to quantify the extent of drug resistance in select pathogenic bacteria isolated from food producing animals including beef cattle, veal calves, swine, turkeys, and broilers.

Study Design: Four collaborating diagnostic laboratories located in Ames, Iowa, Columbia, Missouri, Springfield, Missouri, and Springdale, Arkansas analyzed pathogenic bacteria isolated over a four and one-half year period from food animals. Eight hundred and twenty organisms were identified and analyzed for antibiotic resistance by the Missouri laboratory (See table 1). Bacterial resistance data on 13 different antibiotics were evaluated (see tables 2,3,4).

TABLE I

BACTERIAL ISOLATES USED IN THE UNIVERSITY OF MISSOURI LABORATORY STUDY BY ANIMAL SPECIES AND BACTERIAL ORGANISM

Animal Species	Bacterial Organism Analyzed	Number (%)	Total (%)
Beef Cattle	*Pasteurella haemolytica*	36 (4)	
	Pasteurella multocida	17 (2)	
			53 (6)
Veal Calves	*Escherichia coli*	48 (6)	
	Salmonella typhimurium	26 (3)	
			74 (9)
Swine	*Escherichia coli*	141 (17)	
	Salmonella choleraesuis	163 (20)	
			304 (37)
Turkeys	*Escherichia coli*	211 (26)	
	Pasteurella multocida	123 (15)	
			334 (41)
Broilers	*Escherichia coli*	55 (7)	
			55 (7)
			820 (100)

TABLE II

ANTIBIOTIC RESISTANCE BY ORGANISM

	Escherichia coli		Salmonella *		Pasteurella **	
Antibiotic	No. Tested	%Resistant	No. T.	%R.	No. T.	%R
Ampicillin	214	43	156	4		
Bacitracin					116	98
Chloramphenicol	332	6			118	1
Erythromycin	283	98			169	20
Gentamicin	405	3	157	1	170	61
Neomycin	382	65	161	7	112	89
Nitrofurantoin	388	41	161	1	118	4
Penicillin					168	20
Sonilyn	227	90	64	98	108	92
Spectinomycin	128	41	39	15		
Streptomycin	309	89	155	100	170	94
Tetracycline	375	95	158	20	171	38
Triple Sulfa	370	90	155	100	170	88

* Salmonella included *S. choleraesuis* (163) and *S. typhimurium* (26).
** Pasteurella included *P. haemolytica* and *P. multocida*.

Summary: Drug resistance was surveyed among certain pathogenic bacteria isolated from broilers, turkeys, swine, veal calves, and beef cattle. A high proportion (80% or more) of *E. coli* and *Salmonella* were generally resistant to sulfonamide, streptomycin, and tetracycline (*S. choleraesuis* was more susceptible to tetracycline). A high proportion of *Pasteurella* were consistently resistant to sulfonamide and streptomycin, but were more variable in susceptibility to tetracycline. Occurrence of resistance to other drugs was variable depending on pathogen and animal source. The study demonstrated that certain animal pathogens are frequently resistant to certain antibiotics.

Summary of Contract 223-79-7060

Title: A National and Regional Surveillance of Bacterial Resistance to Veterinary Antimicrobials

Investigator: Thomas F. O'Brien, M.D.
Dept. of Medicine, Brigham and
Women's Hospital
Boston, MA

Purpose: The primary purpose of this project was to compare and trace drug resistance determinants and R-plasmids among the bacteria carried by animals and humans in the U.S.

Study Design: The major components of the study design were:

1. Obtain Salmonella isolated from animals and people from reference laboratories.
2. Test the Salmonella for antibiotic susceptibility.
3. In order to identify more specific groups of organisms, select strains of Salmonella with particular resistance characteristics and analyze the plasmids in these strains.

Results:

Over 10,000 isolates of Salmonella from animals (this source was the USDA in Ames, Iowa) and people (this source was six state public health reference laboratories) were subjected to susceptibility testing. Clusters of Salmonella with the same serotype and antibiotic resistance pattern were further subdivided on the basis of quantitative antibiotic resistance features. Subgroups selected for plasmid analysis included Salmonella isolated from both people and animals.

One of these subgroups included 13 Salmonella newport (S. newport) isolated from 13 unrelated patients in Wisconsin and two S. newport isolated from two pigs in Nebraska. These S. newport isolates were resistant to tetracycline, streptomycin, sulfonamide, and ampicillin, and analysis of their plasmids indicated they harbored the same plasmid as determined by restriction enzyme digestion. Other S. newport isolates with a resistance pattern differing by resistance to one drug had similar, but not identical, plasmid DNA fragment patterns.

Ten Salmonella dublin (S. dublin) isolated from cattle in six states and two S. dublin isolated from two unrelated patients in California were all resistant to tetracycline, streptomycin, kanamyin, and ampicillin. Plasmids from these isolates all had identical DNA fragment patterns. Other S. dublin with similar, but not the same resistance pattern, had the same plasmid DNA fragments plus additional fragments.

A larger group of Salmonella typhimurium var copenhagen isolated from animals from several states and humans from Massachusetts and California were found to produce the rare OXA-2 betalactamase. Restriction digests of plasmid DNA produced numerous fragments. Some of the fragments were fairly well conserved in this group and other fragments were either additions or deletions from the basic fragment pattern.

Conclusions:

1. Animals and humans are infected with the same multi-resistant Salmonella and their plasmids are indistinguishable.

2. The same S. dublin and S. newport were found in both animal and man.
3. This work presented a new method of identifying plasmids which could be used in surveillance.

Summary of Contract 223-79-7055

Title: The Characterization of Bacterial Plasmids Mediating Drug-Resistance in Pathogenic and Non-Pathogenic Enterobacteria

Principal Investigator: Dr. Raul Goldschmidt

Contractor: Department of Microbiology
University of Alabama in Birmingham
Birmingham, Alabama 35294

Purpose: This project was conducted to collect baseline information on the plasmid characteristics and drug resistance associated with plasmids in enteric bacteria (mostly Escherichia coli) isolated from healthy broilers, swine, and beef cattle on U.S. farms.

Design: Under contract 223-77-7032 (Colorado State University), enteric bacteria were isolated from randomly selected broilers, swine, and beef cattle farms in the major animal-producing states. One hundred seventy-four isolates collected during this study which had one of the following patterns of antibiotic resistance were selected for plasmid analysis under the subject contract.

Resistance to:

a) streptomycin (STM), sulfonamide (SU), tetracycline (TET);
b) STM-SU-TET - ampicillin - carbenicillin;
c) STM-SU-TET - kanamycin;
d) minor number of other resistance patterns.

These isolates were selected because the resistance pattern STM-SU-TET occurred most frequently, and the other two patterns had resistances in addition to STM-SU-TET.

Also tested was a small and less representative group (38) of Escherichia coli (E. coli) obtained as clinical specimens from two U.S. hospitals.

Results: Of the 174 multiply resistant animal isolates, 169 (97%) contained one or more plasmids. Various plasmid characteristics are given in the following table:

Plasmid Characteristics	Number/Percent
Contained conjugative R-plasmids	109 (63%)
Contained small non-conjugative R-Plasmids	79 (45%) (91% of these were from swine)
Contained multiple R-plasmids	69 (40%)
Small non-conjugative R-plasmid transferred during mating because of presence of a larger conjugative plasmid.	28 (35% of non-conjugative R-plasmids)

Plasmid Characteristics	Number/Percent
R-plasmid redundancy (same resistance mediated by more than one plasmid)	22 (13%)
Contained 5 or more plasmids	49%
Contained 3 or more plasmids larger than 22 Mdal*	32%

* Megadaltons

Electrophoretic profiles of plasmids from natural isolates with several plasmids give a strong indication that the isolates are clonally related if the profiles are the same. Using this feature, four pairs of animal isolates were considered to be the same; two of the pairs were isolated from different sites and two pairs were isolated from the same sample.

A conjugative R-plasmid obtained from swine at four sites and mediating resistance to ampicillin, carbenicillin, and sulfonamide had the same restriction endonuclease profile. Another group of conjugative plasmids mediating resistance to streptomycin and tetracycline from swine had the same result, and another group from swine and broilers were closely related, as determined also by DNA hybridization.

One of the two most frequently occurring plasmids among the animal isolates was a small non-conjugative one conferring resistance to streptomycin and sulfonamide. Fifteen of these plasmids from isolates collected from broilers, swine, and beef cattle from different sites and different years were shown to have an indistinguishable restriction profile from pRSF 1010, a plasmid isolated from numerous pathogenic and nonpathogenic bacteria. The other most frequent plasmid among animal isolates (swine primarily, and cattle) which mediated resistance to sulfonamide was shown to be indistinguishable from plasmids isolated from clinical samples from two human hospitals. Also of note was the absence from the animal isolates of small non-conjugative plasmids mediating resistance to ampicillin and carbenicillin, which occur commonly elsewhere.

Four of 115 animal isolates produced hemolysin and one produced colicin V. Both traits are associated with pathogenicity. These traits did not transfer to recipient strains. Enterotoxin production (ST and LT) was not detected among 60 animal strains tested.

Few comparisons were made with the human isolates tested in this study because of the small sample size of human isolates. The data collected from human isolates were not notably different from what has been reported in the literature.

In summary, this study showed that E. coli from a random sample of farm animals frequently contained R-plasmids that were largely transferrable either by themselves (conjugative) or because of the presence of larger conjugative plasmids (mobilization of small non-conjugative R-plasmids). Some R-plasmids are widely disseminated among E. coli from animals; some of these are indistinguishable from R-plasmids found in human clinical isolates. A small number of the animal isolates had resistance traits that were not associated with detectable plasmids. Other traits related to pathogenicity were present at a low frequency.

Summary of Contract 223-79-7050

Title: A Study of Comparison of R-Plasmids in Gram-positive Bacteria from Humans and from Animals Given Subtherapeutic Levels of Antibiotics in Animal Feeds.

Principal Investigator: Dr. Richard Novick

Contractor: The Public Health Research Institute
of the City of New York, Inc.
New York City, New York

Purpose: The major goal of the contract was to examine the effects of antibiotics in animal feed on the antibiotic resistance of the gram-positive bacterial flora of animals and humans, and to compare the resistance plasmid pools of these microorganisms.

Introduction: Nearly all of the research on the effect of antibiotic feeding of livestock and the emergence of resistant bacteria has been with gram-negative bacteria; there was very little information of a comparable nature with respect to gram-positive bacteria such as staphylococci and streptococci.

The specific objectives for this contract were as follows: 1) to examine antibiotic resistant staphylococci and streptococci from animals for the presence of R-plasmids and to compare these plasmids with plasmids isolated from human strains; 2) to determine if the feeding of tylosin at a subtherapeutic level to pigs evokes a population of pig-associated staphylococci and streptococci resistant to certain antibiotics, and whether such resistance is plasmid mediated, and whether it could be transferred to humans or to the environment 3) to implant pigs with genetically marked antibiotic resistant staphylococci and streptococci and then to follow the fate of these bacteria.

Study Design: The major components of the study were:

1. Determine antibiotic susceptibility of staphylococci and streptococci isolated from humans and animals.

2. Determine plasmid characteristics and analyze plasmids that mediate resistance to erythromycin.

3. Determine the effect of feeding tylosin to pigs on erythromycin resistance in streptococci and staphylococci isolated from the pigs, the animal caretakers and surrounding environment.

4. Conduct preliminary studies on *in vivo* transfer of erythromycin resistance among fecal streptococci in pigs.

Results:

Of 110 staphylococci isolated from healthy swine in the U.S. (isolates collected under contract 223-77-7032), approximately 50% were resistant to the combination of penicillin (PEN), ampicillin (AMP), tetracycline (TET), erythromycin (ERY), and streptomycin (STM), and 75% were resistant to 4 of these drugs. Multiple plasmids were commonly found in multiply resistant staphylococci and streptococci isolated from farm animals and human clinical material. Certain resistances were transferable. Analysis of plasmids mediating the MLS (resistance to macrolide, lincosamide, and streptogramin B-type antibiotics) resistance phenotype showed that stapylococci and streptococci carry plasmid mediated MLS resistance; several different MLS plasmids were found; homologous MLS plasmids were found from various isolates from all sources; MLS plasmids from streptococci were homologous to MLS plasmids from staphylococci.

An increased proportion of ERY resistant streptococci and staphylococci were found after feeding tylosin to pigs. One predominant strain of ERY resistant *Staphylococcus* in the pigs colonized one of the animal caretakers. *In vivo* transfer of MLS resistance occurred in fecal streptococci *in pigs*. No transfer of MLS resistance to soil bacilli was detected.

Conclusions

1. Multiple antibiotic resistance and plasmids are common among staphylococci and streptococci isolated from humans and animals.

2. Conjugative plasmids in streptococci of animal origin are readily transferred to recipient strains of human origin. Human staphylococcal strains can be transformed using plasmid DNA from animal isolates.

3. The addition of tylosin to the feed of pigs leads to an increase in the MLS resistant staphylococcal and streptococcal flora of these animals.

4. Human and animal isolates of staphylococci and streptococci contain very similar, and occasionally identical, plasmids.

5. Staphylococcal strains can be transmitted from pigs to humans.

6. Conjugative MLS resistance plasmids can be transferred *in vivo* among streptococci in pigs.

7. Streptococcal strains can be transmitted from pig to pig.

Sulfiting Agents

QUESTION: Your advisory committee, the Federation of American Societies for Experimental Biology (FASEB), recently issued a final report in which it stated that the use of sulfiting agents should be discontinued on fresh fruits and vegetables and pre-cut potatoes, in restaurants and other retail food outlets. Do you agree that these particular uses should be banned?

ANSWER: The FASEB Review Panel, which acted under a contract with FDA rather than as an advisory committee, issued a final report on January 31, 1985 in which it recommended that FDA use the regulatory process to encourage food processors to discontinue the use of sulfites on fresh fruits, fresh vegetables, and pre-cut potato products.

FDA is currently evaluating the recommendations made by the Review Panel and all possible regulatory options.

QUESTION: With five deaths related to reactions to sulfite-treated restaurant food, does FDA intend to take any measures to address the use of sulfites in restaurant food?

ANSWER: FDA intends to address the use of sulfites in fruits and vegetables, pre-cut potato products, as well as the use of sulfites in all other food products, all of which may eventually be served or sold in food service establishments.

FDA is currently evaluating all possible regulatory options.

QUESTION: I understand that FASEB found that merely labeling sulfited foods will not adequately protect the sulfite-sensitive population. Nevertheless, I am told that your Agency apparently favors labeling as a solution to the sulfite problem. How does labeling aid the many people who are unaware of their sulfite sensitivity?

ANSWER: Traditionally, labeling has been FDA's basic approach for ensuring the safety of food that contains substances that induce adverse reactions in susceptible individuals. We continue to believe that labeling is the best approach in those circumstances. However, in light of the FASEB Review Panel's recent conclusion that additional labeling requirements alone would not assure protection to sulfite-sensitive individuals, and of the fact that some people are unaware that they are sulfite sensitive, FDA is considering other possible regulatory options with regard to sulfites.

QUESTION: What options, other than labeling, are being considered by FDA?

ANSWER: FDA is now evaluating all available information to determine whether certain uses of sulfites should be proposed for deletion from generally recognized as safe (GRAS) status.

Other options being considered by FDA include:

-- Adoption of regulations at the Federal level requiring sulfite labeling in food service establishments.

-- Continuation of the Agency's work with state and local government agencies to assist them in requiring food service establishments to either quit using sulfites or inform the public that sulfites are used by the establishment.

-- Institution of a public education campaign aimed at both the general public and retail food establishments.

QUESTION: I understand that a combination of citric and ascorbic acid can serve as a substitute for sulfites. Is the Agency of the opinion that adequate substitutes for sulfites currently exists?

ANSWER: Currently, there are substitutes for sulfites for some, although probably not all of their uses in foods. For instance, products composed of ascorbic acid, citric acid, and erythorbic acid have been developed in the past two years for use on cut-up fresh fruits and fresh vegetables.

QUESTION: FDA has indicated that it favors a warning notice on drug labels that contain sulfites. The Department of Health and Human Services has rejected your request for such a warning notice. Do you intend to resubmit a rule for warning notice on drugs for HHS approval? If not, what action do you intend to take?

ANSWER: We plan to pursue our sulfite labeling proposal and are working with HHS to try and resolve the issues they have raised. We are confident that we can reach a mutually acceptable position.

AIDS Research

QUESTION: Last year, the Congress provided $8,350,000 for Acquired Immune Deficiency Syndrome (AIDS) research. Your budget justification states that $5.1 million of this has been used for one-time costs. How much of your budget will be used for AIDS research in fiscal year 1986?

ANSWER: In 1986, $3.7 million is included in our budget request to continue AIDS related research activities such as monitoring the safety and efficacy of the HTLV-III screening tests and the study of improved test methodology, as well as other activities related to the safety of the blood supply and the development of vaccines and treatments for AIDS.

Blood and Blood Products

QUESTION: Why are you planning to reduce activities involving blood and blood products by $3.3 million (from $15.5 million)?

ANSWER: Of the $5.1 million for one-time AIDS costs in the 1985 allowances, $3.5 million is for support of the Blood and Blood Products program and the remainder, $1.5 million, is associated with the Viral and Rickettsial Products program. Both programs were reduced by the amount of the one-time costs. However, these reductions were partially offset by changes in personnel related costs and operating expenses.

MICROBIOLOGICAL STANDARDS FOR POTATOES

QUESTION: What is the status of the NAS study concerning microbiological quality standards?

ANSWER: A final report is expected in mid-May. The Agency has received and reviewed a draft copy of the report.

QUESTION: What is your response to the study?

ANSWER: We agree with the findings and recommendations of the draft NAS report. The report contains two main recommendations. First, the formation of a standing Commission to recommend levels and applications for microbial criteria in foods. This Commission should have representation from federal agencies, state and local governments, academia, and the food industry. Second, the report also recommends that this Commission formulate recommendations employing the Hazard Analysis and Critical Control Point approach in the development of criteria. The Agency endorses both of these recommendations and awaits the final NAS report to initiate action on these recommendations.

QUESTION: Do you plan to reinstitute the survey of processed potato plants?

ANSWER: The Agency will propose to the Commission that it address the issue of the appropriateness of microbiological criteria for processed potatoes. FDA will carefully consider the recommendations made before any action is taken to complete the survey.

Cardiac Pacemaker Registry

QUESTION: Your explanatory notes state that FDA can implement cardiac pacemaker registry regulations within available resources. How much will be spent on this in fiscal year 1986?

ANSWER: We are working with the Health Care Financing Administration to implement the cardiac pacemaker registry. At this time, we do not know what will be spent in fiscal year 1986 inasmuch as this depends largely on some contract costs to be incurred by HCFA that FDA will need to reimburse. However, FDA expects to spend roughly $.5 million in FY86 to begin implementation of the cardiac pacemaker registry. This will cover the collection and analysis of the pilot data, promulgation of regulations, and planning and liaison activities in cooperation with the Health Care Financing Administration.

OTC DRUGS CONTAINING PHENYLPROPANOLAMINE (PPA)

QUESTION: Dr. Young, in spite of fifty years of use of PPA in hundreds of cough, cold and/or appetite suppressant products in this country, and in spite of oversight of PPA by your Agency, we understand that reports, critical of PPA, were issued by a Dr. Horowitz in Australia on a product not comparable to the United States PPA. Do you plan to evaluate the validity of these Australian studies, since they are contradicted by more than sixty scientific studies carried out at major American institutions which found PPA to be safe and effective?

ANSWER: We will consider the validity of the Australian studies in our overall evaluation of the safety of phenylpropanolamine. FDA is aware that the product used in the Horowitz studies may not be comparable to phenylpropanolamine products available in the United States and, therefore, that the results may not be applicable to the U.S. products. The Agency's concerns regarding the safety of phenylpropanolamine, however, are not limited solely to the reports by Dr. Horowitz.

Since we first became aware of the Australian reports, FDA has been closely monitoring the reports of adverse effects associated with phenylpropanolamine ingestion in the United States. A number of reports of adverse reactions, some resulting in death, have been reported in the literature. We have also analyzed reports submitted to our adverse reaction reporting program between 1973 and 1983 and have found a total of 62 spontaneous reports of possible phenylpropanolamine associated events. Of these, 18 resulted in death, of which ten were related to suicidal overdoses.

In addition, the Center for Science in the Public Interest has maintained a national clearinghouse to collect reports of adverse reactions to OTC diet preparations containing phenylpropanolamine and has reported to us 20 cases of strokes, seizures, and other severe adverse effects.

Athough a direct relationship between the use of phenylpropanolamine and the outcome is difficult to establish in the case reports, the reports do raise concern.

Data from the Drug Abuse Warning Network and the National Clearinghouse for Poison Control Centers cause additional concern. These data on specific phenylpropanolamine-containing products suggest that although phenylpropanolamine-related deaths are rare (six cases between 1978 and 1982), emergency room visits associated with phenylpropanolamine occur frequently and have been increasing in recent years.

Based on all available data and information, we conclude that phenylpropanolamine is hemodynamically active in human beings. This activity is expected because this ingredient is a known alpha adrenergic sympathomimetic agent. At doses used in studies to date and at conventional doses used in OTC drug products, phenylpropanolamine has produced the expected hemodynamic effects. These effects on the average have been small. However, little information is available at doses only moderately higher than those currently in OTC use. The existing studies were designed to determine the effects of the conventional doses and were not designed to provide data on dose-response relationships. The agency is interested in data from experimental studies which would address the hemodynamic dose-response relationships of phenylpropanolamine to determine if there is an adequate margin of safety for the continued availability of phenylpropanolamine in over-the-counter preparations.

QUESTION: In February of this year, the National Institute of Health at a Consensus Development Convention found that obesity constitutes a serious health hazard in the United States. Since PPA is an OTC product available today, which some folks feel motivate them to take off weight safely, would you agree that there should be no change in the current category classification of phenylpropanolamine, as was recommended by your own expert review panel?

ANSWER: According to the procedures established for the review and classification of OTC drugs, a Category I classification is given only if the available data establish that a drug can be generally recognized as safe and effective for OTC use. For the reasons discussed earlier we do not believe the existing data are sufficient to establish that phenylpropoanolamine is generally recognized as safe for OTC use. Therefore, in accordance with the procedures established for the OTC drug review, a change in classification could be in order.

A change in classification at this point in the review process would not affect marketing status of the drug. It would merely serve notice that additional data are required before a final conclusion can be made.

QUESTION: The Committee understands that there might be some thought at your Agency to sponsoring high-dose response studies of PPA in humans. Do you feel it is appropriate and necessary to conduct such high-dose response studies, particularly in light of some eleven high-dose studies in humans and animals which indicate an adequate safety margin?

ANSWER: For the reasons we have previously discussed, we believe that dose-response studies are appropriate and necessary to determine if there is an adequate margin of safety for phenylpropanolamine to remain on the OTC market.

QUESTION: Dr. Young, in January of this year you provided this Committee with a report on the FDA's progress in reviewing over-the-counter drugs containing PPA. In the final paragraph of that report, you stated that FDA did not intend to take any action outside the OTC drug review process unless "new data and information become available demonstrating that the continued OTC availability of phenylpropanolamine poses a significant safety risk." Does that continue to be the position of FDA?

ANSWER: Yes, this continues to be the position of FDA.

User Charges

QUESTION: Dr. Young, as you indicated, last year the Committee rejected the proposal to place user fees on New Drug Applications (NDAs) and Abbreviated New Drug Applications (ANDAs). At that time, the General Accounting Office (GAO) was investigating this issue at the direction of this Subcommittee. The GAO has now finished its review and has briefed the Subcommittee on its findings, and I believe it has also briefed you or your staff, and I would like to include a copy of the GAO's report in the record at this point. As a result of this investigation, I have several questions I would like to have answered for the record. However, I do have a couple that I would like to ask now.

FDA previously opposed fees for New Drug Applications on the basis that the agency's activities almost entirely benefited the general public and that only incidental benefits occurred to the drug industry. Why has your position changed and what evidence do you have to support this change?

ANSWER: It is correct that the Agency previously did oppose the implementation of user fees for new drug applications. A number of things that have happened over time have caused us to reassess our position. Court cases interpreting the the Independent Offices Appropriation Act of 1952, 31 U.S.C. 9701, which authorizes user charges, demonstrate that it is not necessary to forgo user charges for an activity simply because that activity is designed for the public's protection. See, for example, New England Power Co. v. NRC, 683 F.2d 12, 14 (1st Cir. 1982); Mississippi Power & Light Co. v. NRC, 601 F. 2d 223, 229 (1st Cir. 1979), cert. denied 444 U.S. 1102 (1980) (Approving fees for licensing of nuclear power plants). This has had an impact on whether or not we believe it is necessary to draw a line between public health benefit and profit-oriented benefit. Most government programs are designed to benefit the general public ultimately, and FDA's activities commonly involve a public benefit. But, actions the government takes often confer economic benefits on identifiable businesses as well, and where such benefits occur, there is statutory authority to charge the business for the benefit that business receives. Without question, the approval of a new drug application provides an economic benefit to the sponsor of that application. This occurs because, once that new drug application is approved, the sponsor has the right to sell that drug in the marketplace, and will usually make a substantial profit from it. It is the fact that these clear economic benefits accrue to the sponsor, an identifiable beneficiary of the services we perform, that makes it appropriate to charge the sponsor for the full cost of performing these services. Charging for the approval process is, however, perfectly consistent with the recognition, which we all share, that the requirement of premarket review of drugs is in the public interest.

[The information follows:]

GAO Report on Proposed User Fees by the Food and Drug Administration

April 2, 1985

TO : Associate Director, HRD - David P. Baine

Harry R. Van Cleve

FROM : General Counsel - Harry R. Van Cleve

SUBJECT: Proposed User Fees by the Food and Drug Administration (File B-217931-O.M.; Code 108861)

You asked our office to determine whether the Food and Drug Administration (FDA) has the authority under 31 U.S.C. § 9701 (hereafter the "User Charge Statute") to institute user fees for its new drug and antibiotic review and approval activities. This issue stems from a request by the Subcommittee on Agriculture, Rural Development, and Related Agencies, Senate Committee on Appropriations, that GAO examine the impact of FDA's proposed user fees. Among the questions the Subcommittee asked was whether FDA's proposed user fees were authorized under the User Charge Statute, Office of Management and Budget (OMB) Circular No. A-25, and judicial decisions construing the statute.

As discussed below, we conclude that the User Charge Statute, as construed by existing case law, and OMB Circular No. A-25 provide FDA with the discretionary authority to institute user fees for its new drug and antibiotic review and approval activities. Our conclusion herein is consistent with a previous report of the Comptroller General, "Fee Not Charged For Processing Applications For New Drugs," B-164031(2), November 4, 1971, recommending that FDA institute user fees for processing applications for new drugs.

In its fiscal year 1985 budget request, FDA proposed a plan to institute user fees. Under that plan, FDA proposed to initiate a user fee pilot project to recover approximately one-third of its costs for review and approval activities for New Drug Applications (NDAs) and for Abbreviated New Drug Applications (ANDAs). FDA approval of an NDA or ANDA is required before a drug can be introduced or delivered for introduction into interstate commerce under 21 U.S.C. § 355. FDA's plan envisioned that Congress would make available up to $5 million of the revenues generated from these user charges for obligation by FDA in return for a $5 million reduction in FDA's appropriations request. The FDA plan was withdrawn after both the House and Senate appropriations committees expressed their opposition to the plan on the basis that FDA's regulation of new drug approvals provided a clear public benefit.

In their fiscal year 1986 budget proposal, FDA again indicated its intention to institute user charges for new drug and antibiotic review and approval activities. While the full scope of FDA plans have not been fixed as of this writing, we have been informally advised by FDA officials that it would be similar to their fiscal year 1985 proposal.

Discussion:

The User Charge Statute, 31 U.S.C. § 9701 (1982) (formerly 31 U.S.C. § 483a), provides as follows:

> "(a) It is the sense of Congress that each service or thing of value provided by an agency (except a mixed-ownership Government corporation) to a person (except a person on official business of the United States Government) is to be self-sustaining to the extent possible.
>
> "(b) The head of each agency (except a mixed-ownership Government corporation) may prescribe regulations establishing the charge for a service or thing of value provided by the agency. Regulations prescribed by the heads of executive agencies are subject to policies prescribed by the President and shall be as uniform as practicable. Each charge shall be--
>
> (1) fair; and
>
> (2) based on--
>
> (A) the costs to the Government;
>
> (B) the value of the service or thing to the recipient;
>
> (C) public policy or interest served; and
>
> (D) other relevant facts."

On its face, the language of the User Charge Statute lends itself to a very broad interpretation of an agency's discretionary authority to institute user fees. However, a series of Supreme Court and United States Court of Appeals decisions have served to limit an agency's discretion concerning the types of fees which can be instituted and the costs which an agency can legitimately seek to recover through a fee.

In National Cable Television Association, Inc. v. United States, 415 U.S. 336 (1974), and its companion case, Federal Power Commission v. New England Power Co., 415 U.S. 345 (1974), the Supreme Court considered user fee schemes established by the Federal Communications Commission (FCC) and the Federal Power Commission (FPC), respectively, which were designed to recover the full cost of regulating industries under their jurisdiction. In National Cable Television, the Court rejected a user fee designed to recover the FCC's full direct and indirect costs for regulation of community antenna television (CATV) systems. In addition to license fees which were already being charged CATV operators, the FCC had assessed an annual fee against the operators calculated at the rate of 30 cents per subscriber. In FCC's opinion, the fee approximated the "value to the recipient" standard used in the User Charge Statute. In rejecting the FCC fee, the Court premised its opinion on the inherent distinction between a tax, which the Court viewed as a charge intended to produce revenue unrelated to any specific benefit the Government may provide, and a fee, which the Court viewed as a charge for a sepcific benefit. 415 U.S. at 340-341.

In analyzing the role of the FCC and the benefits derived from its regulation both by the CATV operators and by the public, the Court rejected the FCC's attempt to recover its full costs for oversight.

> "There is no doubt that the main function of the Commission is to safeguard the public interest in the broadcasting activities of members of the industry. If assessments are made by the Commission against members of the industry which are sufficient to recoup costs to the Commission for its oversight, the CATV's and other broadcasters would be paying not only for benefits they received but for the protective services rendered the public by the Commission."
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> 415 U.S. at 341.

The Court viewed the statutory phrase "value to the recipient" as the proper measure of a fee under the User Charge Statute, stating:

> "It is not enough to figure the total cost (direct and indirect) to the Commission for operating a CATV unit of supervision and then to contrive a formula that reimburses the Commission for that amount. Certainly some of the costs inured to the benefit of the public, unless the entire regulatory scheme is a failure, which we refuse to assume."
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> 415 U.S. at 343.

In Federal Power Commission v. New England Power Co., above, the Court applied the principles of National Cable Television and further defined the scope of the User Charge Statute. In New England Power, the Court considered user fees developed by the FPC to recover the full costs of administering regulatory statutes governing electric utilities and gas companies. Under its user fee plan, FPC imposed an annual assessment on all electric utilities under its jurisdiction in order to recover the agency's full direct and indirect costs for administering the Federal Power Act. The remaining costs were assessed against the subject electric utilities in proportion to their wholesale sales and interchange of electricity. A similar charge was imposed against natural gas companies under the Commission's jurisdiction to recover costs of administering natural gas pipeline programs under the Natural Gas Act. These costs were assessed against all natural gas companies under the Commission's jurisdiction with operating revenues of $1 million or more in proportion to their deliveries of gas in interstate commerce.

In striking down the FPC user fee, the Court agreed that "[W]hole industries are not in the category of those who may be assessed, the thrust of the Act reaching only specific charges for specific services to specific individuals or companies." 415 U.S. at 349. The Court expressly adopted the interpretation of the User Charge Statute contained in OMB Circular No. A-25, September 23, 1959. Quoting with approval from the OMB Circular, the Court stated that:

> "[A] reasonable charge 'should be made to each *identifiable recipient* for a measurable unit or amount of Government service or property from which he derives a special benefit.' (Emphasis added.) The circular also states that no charge should be made for services rendered, 'when the identification of the ultimate beneficiary is obscure and the service can be primarily considered as benefitting broadly the general public.'
>
> "We believe that is the proper construction of the Act."
>
> 415 U.S. at 349-351. (Original emphasis.)

Noting that some of the companies which would be assessed charges under the user fee plan had not been parties to proceedings before the Commission during the period they were to be charged for, the Court stated:

> "The 'identifiable recipient' of a unit of service from which 'he derives a special benefit,' to quote the Office of Management and Budget, does not describe members of an industry which have neither asked for nor received the Commission's services during the year in question."
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> 415 U.S. at 351.

Subsequent decisions by United States Courts of Appeals have applied the analysis of the two Supreme Court opinions to various fact situations. *See* *National Cable Television Association, Inc. v. Federal Communications Commission, (NCTA)*, 554 F.2d 1094 (D.C. Cir. 1976); *Electronic Industries Association v. Federal Communications Commission*, 554 F.2d 1109 (D.C. Cir. 1976); and *Mississippi Power and Light Co. v. Nuclear Regulatory Commission*, 601 F.2d 223 (5th Cir. 1979), *cert. denied*, 444 U.S. 1102 (1980). In *NCTA* the Court reviewed an FCC user charge which assessed an annual fee on cable television operators designed to recover its costs for processing applications for authority to operate and tariff filings. FCC had determined that 44.6 percent of the time of the bureau regulating cable television operators was spent processing these applications and filings. Accordingly, the fee established by FCC sought to recover 44.6 percent of the total direct and indirect costs of operating its cable television's regulatory bureau costs.

The Court remanded the case to the Commission for clarification of the justification for its fee, explanation of the specific items of direct and indirect expenses which comprise the cost basis of the fee and a reconsideration of the rate at which the fee was assessed. In its analysis of costs which could properly be recovered through a user fee, the Court ruled that when an agency establishes a fee for the special benefit it confers, the agency may only include the direct and indirect costs it incurs in providing that benefit.

In *Electronic Industries*, *above*, the Court reviewed a group of FCC user fees which were charged against common carriers and equipment manufacturers. Specifically, FCC had initiated: (1) common carrier applications, filing and grant fees; (2) common carrier tariff filing fees; and (3) equipment type approval, type acceptance and certification fees. In accordance with the principles established in the *NCTA* case, the Court remanded the case back to the FCC for reconsideration and clarification of the user fee schedule.

In its analysis of the fees proposed by FCC, the Court in *Electronic Industries* held that a user charge may include the full cost of providing a benefit to the recipient, even though the service provided may incidentally benefit the public as well.[1] 554 F.2d at 1115. The Court explained its holding as follows:

> "This holding effectively disposes of the arguments of petitioners that no fee can be assessed for tariff filings or for equipment testing and approval. Both activities are required by statute, and the FCC is entitled to charge for services which assist a person in complying with his statutory duties. Such services create an independent private benefit. Tariff filings are required by 47 U.S.C. § 203(a) (1970) and provide a means for the carrier to obtain its revenues and to regulate subscriber use of its facilities. *Although this statute was enacted in order to protect the public against excessive or unreasonably discriminating or preferential charges, that result is only an incidental benefit from the service which is rendered by the agency, i.e., assisting the carriers in complying with the statute*. Similarly, equipment certification, acceptance, and approval is required by 47 U.S.C. § 302a (1970) and 47 C.F.R. § 2.803 (1975), and assists the manufacturer in marketing a quality product and gives him credibility in the

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[1] The Comptroller General also has ruled that under the User Charge Statute, an agency may recover from a special beneficiary the full costs it incurs in providing a service even if the service incidentally benefits the public. 59 Comp. Gen. 389 (1980); B-201667-O.M., May 5, 1981.

> market place. Other commission fees at issue in this case can be justified by the statutory requirement of a permit for construction of new or extended lines or the discontinuance of service by a common carrier, 47 U.S.C. § 214 (1970), and by the requirement of an operating license and station construction permit under 47 U.S.C. §§ 301, 319 (1970)."
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> 554 F.2d at 1115-1116. (Emphasis added.)

In *Mississippi Power and Light Co. v. Nuclear Regulatory Commission, above*, the Fifth Circuit Court of Appeals upheld user fees instituted by the Nuclear Regulatory Commission (NRC) designed to recover the full costs of: (1) routine safety inspections to insure a licensee's compliance with the Atomic Energy Act and applicable NRC regulations; (2) environmental reviews required by the National Environmental Policy Act of license applications; and, (3) uncontested hearings for nuclear reactor construction permits including costs of trial staff, as well as administrative and technical support costs. In upholding NRC's authority to assess fees, the Court rejected arguments that the work of the NRC benefits the public solely, that a license or permit obtained by the applicant does not bestow a special benefit and that, therefore, NRC had no authority to assess a fee.

> "We reject such an argument because it ignores the realities of the operation of the nuclear power industry and is inconsistent with the interpretation given the IOAA [the User Charge Statute] by the Supreme Court. In *National Cable* the Court recognized the authority of the FCC to assess a fee even though 'the main function of the Commission is to safeguard the public interest.' 415 U.S. at 341, 94 S.Ct. at 1149. The Court thus acknowledged the FCC's authority to assess against applicants a fee for services rendered notwithstanding the strong public interest served in providing the service; what the Court found objectionable in the FCC's fee schedule was the agency's attempt to recover the entire cost of regulating."
>
> 601 F.2d at 228. (Emphasis added.)

The court also rejected arguments that NRC's grant of a license provided no benefit to the applicant:

> "A license from the NRC is an absolute prerequisite to operating a nuclear facility, and as such, is a benefit 'not shared by other members of society.' Aside from the benefit of being able to operate a business, however, the petitioners are recipients of other benefits flowing from the grant of a license or permit. One such benefit is the limitation on liabil-

> ity afforded by the Price-Anderson Act, 42 U.S.C.A. § 2210, a boon which almost all licensees are entitled to receive. Moreover, we feel quite certain that the routine inspections conducted by the NRC could uncover hazardous conditions which, if allowed to continue, would jeopardize the safe operation of a licensee's facility. In short, we are not impressed by the petitioners' argument that they receive no benefit from the conferral of an NRC license. Even so, to accept petitioners' argument would mean that no federal agency could assess any fees, since all public agencies are constituted in the public interest. We therefore hold that the NRC has full authority to assess fees against applicants."
>
> 601 F.2d at 228-229.

The Court in Mississippi Power also dismissed arguments that the NRC was required to exclude from recoverable costs that portion of the agency service which represents the benefit to the public. Consistent with Electronic Industries, the Court concluded that when a special service is provided to a private beneficiary, the agency may set a fee to recover the full cost of providing that service regardless of whether the service may also incidentally benefit the public. The Court further concluded that there was no need to allocate the costs of providing the service between the beneficiary and the public. 601 F.2d at 229. See also, New England Power Co. v. Nuclear Regulatory Commission, 683 F.2d 12 (1st Cir. 1982) (upholding NRC's authority to charge user fees for review work on applications for license to operate a nuclear facility, even where that application is voluntarily withdrawn prior to final determination or where the final determination results in a denial of the application.); B-201667-O.M., May 5, 1981.

Analysis:

Based on the foregoing review of judicial decisions interpreting the User Charge Statute, we think the salient legal issue is whether the FDA review and approval activities at issue here bestow a special Government benefit or service to specific identifiable recipients. This statement of the issue reflects as well the policy of OMB Circular No. A-25, September 23, 1959, that a user fee can be imposed "[w]here a service (or privilege) provides special benefits to an identifiable recipient above and beyond those which accrue to the public at large." Based on our analysis of the User Charge Statute and existing case law, we conclude that the FDA's review and approval activities would qualify for the imposition of a user fee.

FDA's user fee proposal seeks to impose charges to recover a portion of the cost for its new drug and antibiotic review and approval activities. Under the Food, Drug, and Cosmetic Act, 21 U.S.C. § 355(a), no person shall introduce or deliver for introduction into interstate commerce any new drug unless FDA has approved an application with respect to that drug. Failure to obtain FDA approval prior to marketing a new drug in interstate commerce could result in civil and criminal sanctions. See 21 U.S.C. §§ 331-334. Thus, in order for a new drug to be legally marketed, FDA approval of a new drug application must first be obtained.[2] FDA's approval of such an application is based on a review of scientific studies demonstrating the drug's safety and effectiveness. 21 U.S.C. § 355(b),(d). The same requirements apply to FDA's review of antibiotic drugs.

There is little doubt that the FDA review and approval activities relate to an identifiable recipient, namely, the applicant for new drug approval. See Federal Power Commission v. New England Power, above. The more difficult issue is whether the FDA review and approval activities bestow a special benefit or service above and beyond the benefits which accrue to the public. In this regard, OMB Circular No. A-25 provides several examples of services which would support user fees. For example, services which enable the beneficiary to obtain more immediate gains or values other than those which accrue to the general public (e.g., receiving a patent, crop insurance, or a license to carry on a specific business) are appropriate for user fees. Another example is services which provide business stablity or assure public confidence in the business activity of the beneficiary (e.g., certificates of necessity and convenience for airline routes, or safety inspections of craft).[3]

We think the "special benefit" test is met here. First, just as the NRC license in Mississippi Power was a prerequisite to operation and hence the granting of such license a special benefit, FDA's approval is a prerequisite to marketing a new drug or antibiotic--a clear benefit to the manufacturer. See, OMB Circular A-25, above. Since FDA approval also serves to provide public confidence in the safety and effectiveness of the product, such FDA approval would appear to satisfy the business stability/public confidence category described in the Circular and recognized in the case law discussed above. Accordingly, we would maintain that such a required approval prior to the marketing of a new drug or antibiotic is a special benefit which constitutes a "service or thing of value" to the applicant not shared by other members of society which can legitimately be subject to user charges. See e.g., NCTA, 554 F.2d at 1101-1102; Mississippi Power, 601 F.2d at 228-229.

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[2] FDA has serveral different types of new drug and antibiotic application review and approval procedures: review and evaluation of new drug applications; paper new drug applications; abbreviated new drug applications; and full and abbreviated antibiotic marketing applications. However, for each of these types of administrative action, final FDA approval under 21 U.S.C. § 355 is required before the drug or antibiotic can be legally marketed.

[3] It should be noted that the Circular used the licensing of new biological products as an illustration of services which should not be charged for because, "the identification of the ultimate beneficiary is obscure and the service can be primarily considered as benefiting broadly the general public." However, in January 1966, the Deputy Director of the Bureau of the Budget sent a letter to the Assistant Secretary of HEW recommending user charges be instituted for several activities conducted by FDA including the processing of new drug applications. Since that time OMB has repeatedly suggested that user charges be instituted for processing new drug applications.

This is not to say that FDA's new drug and antibiotic review and approval responsibilities do not provide a significant public benefit. However, as recognized by existing case law, the existence of a concurrent public benefit does not preclude the imposition of user fees. In National Cable Television, 415 U.S. at 341, the Supreme Court specifically recognized that the main function of the FCC was to safeguard the public interest in broadcasting. Indeed, the Court refused to assume that such regulatory schemes do not provide some benefit to the public. 415 U.S. at 343. Yet despite this recognition, the Court accepted FCC's authority to institute user fees so long as the FCC's fee was consistent with the Court's interpretation of the statute's "value to the recipient" standard. 415 U.S. at 341-343.

Similar results were reached in Electronic Industries and Mississippi Power. As noted earlier, both Courts of Appeals expressly rejected arguments that the public interest in the activities subject to the user fees was so strong that it was unfair to assess their cost against private parties. The Court in Electronic Industries explained the language in National Cable Television which suggested that an agency could not charge fees that would recover expenditures made to safeguard the public interests as follows:

> "It is clear that under [National Cable Television] expenditures made to benefit the public are required to be excluded from a proper fee. 415 U.S. at 341-43. But the Court has not held that no fee can be assessed in situations which partially benefit the public. To the contrary, it explicitly recognized that 'some of the costs [of the FCC regulation of the cable television industry] inured to the benefit of the public, unless the entire regulatory scheme is a failure, which we refuse to assume,' 415 U.S. at 343, but held that a fee related to costs could still be assessed against the private recipient so long as it was measured by a 'value to the recipient' standard and the cost of providing public benefits was excluded. 415 U.S. at 342-44."
>
> 554 F.2d at 1113 (Parallel citations omitted.)

In Mississippi Power, 601 F.2d at 228, the court also rejected arguments that because of the strong public benefit from the NRC's regulation of nuclear facilities user fees for licensing, safety inspections and environmental studies should not be charged. The Court recognized that "'public safety is the first, last, and a permanent consideration in any decision on the issuance of a construction permit or license to operate a nuclear facility.'" 601 F.2d at 228. However, the Court read the User Charge Statute and the Supreme Court's decision in National Cable Television as authorizing user fees to be assessed "notwithstanding the strong public interest served in providing the service."

While an agency may not charge the recipient of a special benefit for the costs the agency incurs for providing an independent benefit to the general public, a user fee may include the full cost of providing a benefit to the recipient, even though the service provided may benefit the public as well. Electronic Industries, 554 F.2d 1109 (D.C. Cir. 1976); Mississippi Power, 601 F.2d 223 (5th Cir. 1979). FDA's user fee plan included in its fiscal year 1985 budget proposal did not contemplate recovery of all costs connected with its new drug and antibiotic review and approval activities. Instead FDA estimated full direct and indirect costs for its new drug and antibiotic review program, excluding items which they believed were undertaken principally for the public benefit, at $14.9 million. FDA's proposed plan excludes the costs of reviewing and evaluating investigational new drugs (drugs used primarily for testing and research) and drugs designated as "orphan drugs' under the Orphan Drug Act, Pub. L. No. 97-414, January 4, 1983, 96 Stat. 2049, 21 U.S.C. §§ 360aa-360ee, (drugs developed to treat rare diseases or conditions). FDA estimated that their proposed fees would be able to generate approximately $5 million annually, or about one-third of their actual cost of these services. Clearly, the problem faced by the Supreme Court in National Cable Television and New England Power, where the FCC and the FPC attempted to recover the entire cost of their regulatory program from user fees, was not presented by the FDA proposal.

In summary, we believe that FDA has the discretionary authority under 31 U.S.C. § 9701 to institute user fees for new drug and antibiotic review and approval activities as described in their fiscal year 1985 budget proposal. Such a fee is consistent with the general policy guidance in OMB Circular No. A-25, September 23, 1959, that fees should be charged for services which provide special benefits to an identifiable recipient above and beyond those which accrue to the public at large. This finding is also consistent with our conclusion in a previous report of the Comptroller General, "Fees Not Charged For Processing Applications For New Drugs," B-164031(2), November 4, 1971, in which we recommended that FDA institute user fees for processing applications for new drugs.

QUESTION: In the 1985 proposal, it was estimated that about $15 million of FDA's New Drug Application costs were appropriate for recovery. Why then are you asking only for authority to use up to $5 million?

ANSWER: The President's 1986 Budget proposes that, although it was estimated that we would collect $15 million in user charges during FY 1986, we will keep only $5 million of those collections, with the balance going to the general receipts of the Treasury. This plan was originally conceived so that the effect of the user charge collections on FDA would be revenue neutral. That is, the Administration reduced its request for appropriated funds for FDA by $5 million, and had this amount offset by letting the Agency keep $5 million of user fees collected. It is our view that, over time, the user charge program may evolve to the point that most of the revenues collected may be retained by FDA for program enhancements for those activities which generated the user charge revenues.

QUESTION: In fact, I have received correspondence stating that you might have some support for imposition of reasonable fees, if such fees were used to improve FDA procedures, such as the drug review process. What is your reaction to that? Will you be using these fees to improve or shorten the review process?

ANSWER: Our reaction to this proposal is very positive. We also think it is only fair that enhancing such FDA programs should be done substantially at the expense of the industry that has an economic interest in the efficiency of our procedures, rather than have the economic burden fall strictly on the tax revenues. This, however, is not what is proposed in the 1986 budget request. It may, however, be a very reasonable avenue for us to explore in the context of future budgets for the agency.

QUESTION: Dr. Young, you obviously believe that user charges are desirable for some FDA activities. How do you envision user charges evolving over the next several years at FDA? Is this only the start?

ANSWER: In the future, we would like to pursue a broader user charge program in which fees collected would not necessarily be offset by equivalent reductions in new budget authority for the agency, but could be retained by the agency in order to make capital enhancements to support those programs which generated the user charges. Initially, we are seeking to do this for our new drug approval activities, but we think the same logic can support user charges for other FDA new product approval activities, such as food additives, premarket approval for new devices, new animal drugs, and any other similar agency activities. Ultimately, we can envision many of these programs assessing user charges to recoup most of the costs of the activities, with the revenues generated being used to support capital expenditures that would enhance agency program activities in each one of these respective areas.

Orphan Drugs

QUESTION: In the reports on our fiscal year 1985 appropriations bill, both the House and Senate Appropriations Committees stated that the funds provided for FDA Salaries and Expenses included not less than $3 million for orphan drugs. Will this full amount be spent this year?

ANSWER: Yes. In accordance with the provisions of the 1985 House and Senate Reports, we do intend to spend at least $3 million for orphan product activities.

QUESTION: I understand that in fiscal year 1985, you will receive $1 million from the National Institute for Child Health and Human Development for additional orphan products research grants. Will this be used in addition to the $3 million? Is this grant from the Institute an annual grant, or only a one-time grant?

ANSWER: The $1 million which we will receive from the Institute for orphan products research grants is a one-time allowance which will allow us to award a total of $2.4 million for this purpose in 1985, as well as to spend $1.6 million to support our internal orphan product effort. In other words, this $1 million is in addition to our own $3 million. We do not know at this time if NICHHD will be able to continue such support in 1986.

QUESTION: You state in your prepared remarks that you would exempt the review of orphan drug applications from user charges? Why?

ANSWER: The orphan product program was developed to encourage and stimulate innovation in research on these drugs which, because they are used to treat rare diseases, are not very profitable for the pharmaceutical company. Therefore, it would be counter-productive to impose user charges on efforts to get these products approved and on the market as quickly as possible.

Sodium Content of Processed Food

QUESTION: Your statement indicates you are satisfied with the efforts and progress the FDA has made in regard to sodium labeling. I wonder, however, what FDA is doing to increase consumer awareness about sodium content of foods and its relationship to health. I recently heard of a study which indicated that the sodium content of most processed foods had not changed significantly over the last year. In fact, the sodium content in some foods had actually risen. Do you still believe that FDA's voluntary labeling plan is working and have you given further consideration to a mandatory program?

ANSWER: We believe that the voluntary sodium labeling aspect of the Agency's overall sodium program has already achieved a considerable level of success and that measurable progress in the extent of sodium labeling continues to be made. The most recent Food Label and Package Survey (FLAPS) which FDA uses to track the prevalence of sodium information on certain food labels revealed that quantitative sodium declarations now appear on the label of foods accounting for

39.6 percent of grocery sales of FDA-regulated packaged processed foods. This represents an increase of nearly ten percent over the corresponding figure obtained from the 1983 survey and is more than twice the value observed in the 1982 survey (when the sodium labeling regulations were first proposed). Even more encouraging, 46 of 51 processed food groups for which detailed sales volume data are available now include some products bearing quantitative sodium labeling. This compares with 40 food groups in the 1983 survey and 31 food groups in 1982.

When the sodium labeling regulations become effective, the labels of packaged foods subject to FDA jurisdiction which bear nutrition labeling must also include sodium content information. Furthermore, the regulations will continue to permit sodium content labeling in isolation without triggering a requirement for full nutrition labeling. Therefore, we are confident that sodium labeling will be included on more than 50 percent of FDA-regulated packaged processed foods by the effective date of the sodium labeling regulations. FDA will reexamine the extent of sodium labeling in the food supply by means of the next FLAPS survey to be conducted in 1986.

Because of the continuing significant progress noted above, we do not believe that mandatory sodium labeling is necessary at this time. The Agency will only consider recommending some form of mandatory sodium labeling legislation if the current program proves to be insufficient.

ANTIBIOTICS IN ANIMAL FEEDS

QUESTION: What is FDA's timetable for making its recommendation to Secretary Heckler on the NRDC's petition?

ANSWER: The Agency cannot state specific dates at this time, but we expect that a recommendation will be forwarded to the Secretary in the very near future.

QUESTION: Hasn't the Animal Health Institute (AHI) initiated some additional studies? Do you consider the information that will be generated by these studies to be valuable in FDA's review of the issue?

ANSWER: The Agency has been in contact with the AHI and understands that the studies have been initiated. We will inquire, prior to our final decision, the status of the research. If there is overwhelming evidence that is contrary to current information we will defer our decision.

QUESTION: It is our understanding that the AHI studies are directly responsive to the suggestions of the National Academy of Sciences' review of this issue and data from these studies will be available by the fall of this year. Will FDA include the results from these epidemiological studies when they are completed in its review of this issue before making a decision on any further regulatory action?

ANSWER: FDA will continue to review all pertinent evidence up until the time that a formal evidentiary hearing begins.

Food Irradiation

QUESTION: There have been some bills introduced in Congress which promote the use of radiation as a postharvest treatment for food commodities. One of the arguments for pushing this is that this would be a way to facilitate the opening of the foreign export market for certain commodities -- fresh fruits, vegetables, grains and even pork. It is also argued it would be an attractive alternative to the pesticide ethylene dibromide (EDB).

a. What is FDA's position on the use of radiation? Is food irradiation a harmful process?

ANSWER: Part 179 of Title 21, Code of Federal Regulations provides for the use of Radiation and Radiation Sources in the Treatment of Foods. In addition to those provisions which already exist under Part 179, there are several proposals under consideration which would extend the conditions of use and other foods. Foods treated with radiation not in consonant with the provisions of Part 179 are deemed adulterated as unsafe within the meaning of the Food, Drug, and Cosmetic Act.

Thus, irradiation of foods not in accordance with the regulations is illegal (adulterated) in interstate commerce in the United States. However, section 801(d) of the act provides that foods irradiated not in consonance with the regulations but which was intended for export would not be deemed adulterated if the requirements of that section are met. These requirements are that the food accords to the specifications of the foreign purchaser; is not in conflict with the laws of the country to which it is intended for export; is labeled as intended for export; and is not offered for sale in domestic commerce.

Under the circumstances, we could not object to the exportation of irradiated foods (which foods would be deemed adulterated in the U.S.) provided the appropriate legal conditions were met.

FDA's Action Plan

QUESTION: You mention in your Opening Statement a new action plan for FDA which will enable the agency to prepare for the 21st century. I understand it has not yet been released, but yet you state its major objectives.

a. Can you accomplish a new agenda for FDA without asking for additional resources to carry it out?

b. Will you need additional resources in the future to carry out the course of action?

c. Please provide a copy of your Action Plan to the Subcommittee as soon as it is available.

ANSWER: Mr. Chairman, we are still assessing the full resource implications of implementing this Action Plan. We can assure you that our first priority will be to carefully reassess the way that resources are currently deployed within FDA. Where it is possible, resources will be redeployed in such a way as to let us carry out Action Plan objectives without asking for additional personnel or dollars. It is possible, however, that in some areas we will still need some additional resources to try to implement significant portions of the Action Plan. It is too early to make such a determination at this time, however. If there are significant resource needs identified for implementation of portions of the Action Plan, we will try to address those in the context of the FY 1987 Budget for FDA. We will also be happy to provide you with a copy of the Action Plan as soon as it is available.

COORDINATION WITH USDA

QUESTION: You mention several areas of cooperation with USDA in your statement. We are always concerned that in the many separate parts of the government the right hand should know what the left hand is doing.

a. Could you give us some specific examples of such coordination?

b. Can you assure us there is no duplication of efforts or research?

ANSWER: In addition to those examples mentioned in my opening statement, especially in FDA's Foods, and Animal Drugs and Feeds programs, there is extensive informal exchange from day to day among the scientists in FDA and USDA due to our similar responsibilities. There is also frequent contact in the field on problems that may impact on both agencies. One of the most important areas of coordination results from USDA's responsibility to inspect meat, poultry, and eggs. When residues of animal drugs, or other contaminants such as industrial chemicals, are found in these products, FDA and FSIS coordinate as quickly as possible in order to determine the source and scope of the problem. Since FDA is responsible for the safe use of animal drugs as well as the safety of animal feed, we seek to optimize the resources of both FDA and USDA to resolve and prevent such problems, and we have conducted joint educational campaigns in such areas as the safe use of drugs in cattle and swine before slaughter, and the use of electrical machinery containing PCBs in food and feed plants.

Far from being duplicative, FDA's research both complements and makes extensive use of information produced by USDA, such as the Food Consumption survey, in its analysis of the overall safety of the food supply and specifically in its Total Diet Studies, which seek to analyze the overall levels of both nutrients and contaminants consumed by various parts of the population.

Also, FDA's veterinary research facility, which is located at the Beltsville Agricultural Research Center, draws heavily on both the scientific expertise as well as the support facilities of USDA there.

Minor Species Drug Control

QUESTION: You mention the lack of approved drugs for minor uses. How extensive is the use by producers and veterinarians of drugs for unapproved uses?

ANSWER: Of those approximately 4,000 animal drugs approved, many are not used in accordance with the conditions of their approval. Some are used at increased dosages for unapproved indications or in unapproved species. For example, oral chloramphenicol solution is only approved for use in dogs but has been actually used almost exclusively in cattle and swine. The unapproved use in minor species is also great because there are so few products approved for such use. Minor animal species are animals other than cattle, horses, swine, chickens, turkeys, dogs, and cats.

In open meetings, producers and their veterinarians have stated that they are, by practical necessity, using unapproved drugs to treat certain diseases. Such use is without the safeguards that approved drugs carry since safety and effectiveness have not been formally documented. However, if the diseases are left untreated, the results may include financial losses incurred by the producers as well as potential public health hazards; e.g., salmonellosis in some game birds can cause food poisoning in humans.

QUESTION: How long do you anticipate it will be before drugs to combat diseases in catfish and other minor species will be approved?

ANSWER: We expect to approve several drugs for minor uses/minor species on an annual basis. However, we are unable to predict specific approvals due to factors beyond the control of FDA. These factors include the following:

- Finding a sponsor to market the drug. The Agency has taken action to encourage the development of research projects in the area of minor use animal drugs by amending the animal drug regulations regarding data collection requirements for minor use animal drugs. The amended regulation allows sponsors, where appropriate, to use data supporting an approved major use of a drug to support a new animal drug application for a minor use of the same drug.

- Level of growth of the Animal Drug Program of the USDA Interregional Research Program Number 4 (IR-4). FDA endorses the IR-4 program and views it as a viable means to generate research for approval of needed minor uses of veterinary drugs.

- Prior approval of the drug in a major animal species. Sponsors of minor species drugs must have access to the data filed by the sponsor who holds the approved application in the major animal species. The data on file for use in the major animal species provides much of the data base for use in the minor animal species.

- Cooperation of sponsor beyond the commitment to market the drug. That is, the sponsor may perform analyses of samples collected during studies, conduct studies to obtain part of the required data, and organize data for filing of a new animal drug application.

The progress made in the past year regarding drugs for minor species has been encouraging. FDA has assigned a full-time veterinarian to Rutgers University, headquarters of IR-4 to assist in the drug approval process. FDA has also funded university basic and applied research on minor species totaling $572,352 during fiscal year 1984 and is planning to fund equal amounts for fiscal years 1985 and 1986. In addition, FDA plans to support studies on the range and extent of drug metabolism in fish and other aquatic animals used for food. Submitted for the record are the drugs for minor species that are under review or approved within the past year and a list of IR-4 Animal Drug Program's projects and cooperators. It is anticipated that, within the near future, a sponsor will submit for our review the data on the use of sulfadimethoxine/ormetoprim in catfish.

[The information follows:]

Status of Drugs for Minor Species

Use	Drug	IR-4 Public Master File Published	NADA Status	NADA Owner
1. Gapeworms Pheasants	Thiabendazole	Yes	Approved	Merck
2. Coccidiosis Sheep	Lasalocid	No-Direct NADA	Approved	Hoffmann La Roche
3. Bots Reindeer	Ivermectin	Yes	Application Under Review	Merck
4. Coccidiosis Pheasants	Amprolium	Yes	Application Under Review	Merck
5. Furunculosis Trout	Sulfadimethoxine + Ormetroprim	No-Direct NADA	Approved	Hoffman La Roche
6. Fowl cholera Infectious serositis (*Pasteurella anatipestifer*) *Anatipestifer* *Escherichia coli* infections	Sulfadimethoxine + Ormetroprim	No-Direct NADA	Approved	Hoffman La Roche

IR-4 ANIMAL DRUG PROGRAM
PROJECTS & COOPERATORS

REVISED MAR 2 5 1985

* APPROVED PUBLIC MASTER FILE - PUBLISHED IN THE FEDERAL REGISTER

ADR NUMBER	LIVESTOCK	DISEASE	DRUG NEEDED	COOPERATING INSTITUTIONS
1	Angora Goats	Coccidiosis	Monensin	Texas A&M University & Eli Lilly Company
* 2	Pheasants	Coccidiosis	Amprolium	Penn State University & Merck & Company, Inc.
3	Feedlot-lambs	Coccidiosis	Monensin	Texas A&M University & Eli Lilly Company
4	Catfish	*Aeromonas hydrophila*/	Sulfadimethoxine plus Ormetoprim	Mississippi State University & Hoffmann-LaRoche, Inc.
* 5	Pheasants	Gapeworms	Thiabendazole	Penn State University & Merck & Company, Inc.
7	Rabbits	Coccidiosis	To be determined	University of Arkansas
8	Goats	Liver flukes	Albendazole	Washington State University & Smith Kline Animal Health Produc
9	Ducks	*P. anatipestifer*	Lincomycin	Cornell Univeristy & The Upjohn Company
10	Ducks	Erysipelas	Penicillin	Cornell University

ADR NUMBER	LIVESTOCK	DISEASE	DRUG NEEDED	COOPERATING INSTITUTIONS
* 11	Reindeer	Warble flies	Ivermectin	University of Alaska & Merck & Company, Inc.
12	Sheep & Goats	Muellerius Capillaris & Trichuris	Fenbendazole	Purdue University
13	Cattle	Acute Bovine Pulmonary Emphysema & Edema	Monensin	Washington State University & Eli Lilly Company
14	Feedlot-lambs	Coccidiosis	Decoquinate	Washington State University & Rhone-Poulenc Company
15	Lobsters	Gaffkemia	Oxytetracycline	University of Maine & The Pfizer Company
17	Goats	Gastrointestinal Worms	Ivermectin	University of Nebraska & Merck & Company, Inc.
18	Salmonid fishes	Bacterial Gill Disease	Chloramine-T	USDI, Fish & Wildlife Service & Wisconsin Pharmacal Company
19	Alligators	Bacterial Diseases	Oxytetracycline	University of Florida & The Pfizer Company
30	Quail	Ulcerative Enteritis	Bacitracin	University of Florida & A.L. Laboratories
31	Wild Ducks	Schistosomiasis	Praziquantel	Hope College (Michigan) & Bayvet Laboratories
33	Dairy Goats	Bacterial Infections	Amoxicillin Trihydrate	University of California & Beecham Laboratories

ADR NUMBER	LIVESTOCK	DISEASE	DRUG NEEDED	COOPERATING INSTITUTIONS
36	Dairy Goats	Bacterial Enteritis	Ampicillin (injection)	University of California & Bristol Laboratories
42	Dairy Goats	Bacterial Infections	Oxytetracycline	University of California & The Pfizer Company
59	Dairy Goats	Bacterial Pneumonia	Sulfamethazine	University of California & Norden Laboratories
61	Dairy Goats	Bacterial Infections	Tylosin (injection)	University of California & Eli Lilly Company
63	Dairy Goats	Mastitis	Benzathine Cloxacillin	University of California & Bristol Laboratories
66	Dairy Goats	Mastitis	Novobiocin & Procaine Penicillin	University of California & The Upjohn Company
74	Sheep	Bacterial Pneumonia	Sulfamethazine	University of Idaho & Norden Laboratories
87	Sheep	Bacterial Pneumonia	Amoxicillin Trihydrate	University of California & Beecham Laboratories
111	Dairy Goats	Coccidiosis	Decoquinate	Washington State University & Rhone-Poulence Company
113	Quail	Coccidiosis	Amprolium	Agricultural Research Servic & Merck & Company, Inc.
114	Quail	Coccidiosis	Monensin	Agricultural Research Servic & Eli Lilly Company
115	Quail	Coccidiosis	Salinomycin	Agricultural Research Servic & A.H. Robbins Company
118	Trout	Redmouth Disease	Tiamulin	U.S. Fish & Wildlife Service & SDS Biotech, Inc.

Construction Plans

QUESTION: Your opening statement mentions the status of construction of Module #1 of your new laboratories, yet you do not mention any other future plans, and the budget has not requested any new funding. What is the status of Module #2 and do you still have long range plans for additional construction at your Beltsville property?

ANSWER: The design of Module #2 is expected to be complete by September of 1985. Our master plan for FDA's Beltsville site is still based on the concept of locating there at least all of the Washington-area activities of the Center for Food Safety and Applied Nutrition and the Center for Veterinary Medicine.

AIDS RESEARCH

QUESTION: Fiscal year 1985, Congress provided $8.4 million for research on Acquired Immune Deficiency Syndrome (AIDS). Are we making progress in that area?

ANSWER Yes, we are beginning to make progress. The following recent activities within the Food and Drug Administration are relevant to vaccine development and therapeutic intervention for AIDS:

- Characterization of HTLV-III (the retrovirus discovered by NIH scientists in early 1984 to be underlying cause of AIDS). A sensitive, specific assay for HTLV-III infectivity has been developed and applied in studies of viral inactivation. Procedures tested for inactivation include wet and dry heat at various temperatures, formalin, betaproprolactone, ethanol, ether, detergents, and other treatments. Methods have been developed that remove inactivating agents without reducing viral infectivity, so that inactivation can be suitably validated. Preparations of inactivated virus have been tested by the ELISA test (enzyme-linked immunosorbent assay), and several inactivation procedures have resulted in retention of antigenicity. These findings may be relevant to preparations of vaccine antigens.

  Purification of viral proteins has been accomplished. We have defined physiochemical characteristics of the proteins, such as isolectric points, solubility and affinity profiles in solutions and on columns, and presence of disulfide bonding.

- Efforts have been made to express HTLV-III genes in bacteria and eukaryotic cells using clones and appropriate expression vectors. To date, the major gag gene protein (major portion of P24) has been produced in bacteria, and various other transformants are under study.

- Studies of the pathogenesis and immunology of AIDS have continued to indicate the presence of a T-cell maturation arrest related to the presence of a circulating inhibitor of interleukin 2 production. The inhibitor has been purified and its identity is being sought.

- Attempts to develop animal models are in progress. Infections have been established in two primate species and chronic lymphoid disease with chronic infection has developed in mice.

- Studies of in vitro effects of antivirals are in progress. Of note are findings that two compounds (identity unknown) inhibit production of HTLV-III by the chronically-infected T leukemia cell line, H9 cells, and prevent infection from being newly established in these cells.

  The FDA continues to review and advise on the potential use of new drugs and immunotherapeutics for specific treatment of AIDS.

- FDA continues to collaborate in various studies of treatment of patients with AIDS. Among those current are interleukin 2 therapy and DHPG treatment for cytomegalovirus infections. DHPG has shown great promise, but we are currently studying isolates from non-responding patients for development of resistance to the drug.

- A significant issue in vaccine development is the availability of appropriate target populations and test methods to monitor vaccine performance. FDA has worked extensively to evaluate sensitivity and specificity of ELISA and Western blot assays (a technique for identifying antibodies to proteins of specific molecular weight) potentially available for commercialization. These actions include an extensive regulatory review effort and the recent performance of a study of 30,000 plasma specimens from blood banks and plasmapheresis centers. It is anticipated that one or more well characterized tests will be routinely available in the near future, increasing the number of researchers with access to the procedure.

  FDA recently identified one population which might be considered for vaccine studies. Homosexual men or patients with hemophilia from Budapest where studies for antibodies to herpes viruses was increased in homosexual men but none had antibodies to HTLV-III, not even those with chronic lymphadenopathy and cutaneous anergy. These findings indicated a similar epidemiological situation with respect to sexually transmitted viral diseases, in general, compared to that of homosexual men in the United States, but the absence of HTLV-III in the population at this time. Patients with hemophilia also lacked antibodies to HTLV-III. Thus, this population is likely at risk for rapid spread of HTLV-III once it is introduced into the population, and may be a suitable population for vaccine studies.

- The blood supply will be made safer as a result of the application of recently licensed diagnostic tests for antibody to HTLV-III virus. However, we must increase our understanding of the meaning of a positive test for the individual. FDA, therefore, is sponsoring a large, multi-center study of blood donors in high and low incidence areas for AIDS. There will be rigorous laboratory evaluation of control and test groups, and donors with positive HTLV-III tests will be followed for five years to evaluate their health status.

In addition, there are several AIDS-related research projects within the area of blood and blood products. These include:

- o Immunofluoresence Study of T and B lymphocyte populations in peripheral blood of HTLV-III positive, asymptomatic donors.
- o Collaborative Study to examine the cross reactivity of antibody to Non-A, Non-B, hepatitis virus with HTLV-III glycoprotein.
- o Testing AIDS patient sera for reverse transcriptase activity and correlating enzyme activity with viral infectivity.
- o Thermal inactivation studies on HTLV-III.
- o Evaluation of HTLV-III test kits for the detection of antibody to HTLV-III.
- o Studies to establish the safety of immuoglobulin products with respect to non-transmission of AIDS and freedom from HTLV-III virus.
- o Studies of metabolism of immunocompetent cells and HTLV-III infected cell lines.

SLUC

QUESTION: Your notes indicate that your 1985 SLUC charges were $25,888,000, the same as your 1986 request. Congress appropriated $26,072,000 for this purpose. What were the excess funds used for?

ANSWER: At present, we expect to spend the $26,072,000 appropriated for SLUC in 1985 for that purpose. The estimates shown in our Justification are normally adjusted for transfers that will occur between the Current Year and the Budget Year, so that Congress can consider the true impact of real changes in the budget. The actual reduction of $184,000 in SLUC which will occur in 1986 is a technical adjustment to reflect more accurately the Agency's share of common-use space in the Parklawn Building in Rockville, Maryland.

QUESTIONS SUBMITTED BY SENATOR MCCLURE

Microbiological In-Process Survey of Potatoes

QUESTION: Commissioner Young, last year the FDA was conducting an extensive survey of processing plants to measure the amount of bacteria occurring in foods. This survey, called the microbiological in-process survey of potatoes, was not necessary and a wasteful use of taxpayers money. After discussions last year concerning this survey a decision was reached that no further sampling would be conducted until after the National Academy of Sciences report was issued which dealt with this and until after adequate hearings in this Committee. What are FDA's plans concerning this study for FY86?

ANSWER: The Agency has no plans to reinitiate the microbiological in-line survey of dehydrated potatoes. We plan to refer this matter to a yet-to-be-formed Commission recommended in the

National Academy of Sciences draft report on microbiological criteria.

QUESTION: When is the National Academy of Sciences report expected?

ANSWER: The final NAS report is expected to issue in mid-May 1985. A draft report has been reviewed by the Agency, and our comments returned to NAS. We accept the draft report and its recommendations as written. A principal recommendation of the draft report was the formation of an Advisory Commission consisting of appropriate experts from FDA; USDA; the Department of the Army; the National Marine Fisheries Service, NOAA; representative state and local governments; academia; and the food industries. The Commission will make recommendations concerning the proper contents and application of microbiological criteria for various foods. The recommendations would be considered and utilized by regulatory government agencies, government or private purchasing authorities, and the food industry.

QUESTION: What is the relative priority of microbiological survey work in comparison to other activities in the foods program?

ANSWER: To accurately answer the question, the term "microbiological survey work" must be clarified, and subdivided into two efforts, (1) pathogen (a subset of microbes) surveillance and research, and (2) microbiological surveys aimed at determining non-pathogen microbial content which may affect the quality of foods or reflect the sanitary conditions under which they were processed.

The first, pathogen surveillance, is by far the higher priority program in the microbiological area, and the bulk of the Agency's resources are devoted to it. Research on the identity, mechanisms of action, and methods to detect and quantitate known and suspected pathogenic microbes in the food supply are the major focuses of the Foodborne Biological Hazards Program. Application of this research data in conjunction with analytical methods developed by FDA field laboratories enables the Agency to determine which food commodities may transmit pathogens to man and cause illness. Surveys of this type have priority over virtually all other activities within the Food Safety Program because they relate directly to acute hazards to health.

The second, non-pathogen surveillance, while important, is of lower priority. None of this type of surveillance work is planned for FY 1986 or until such time as the yet-to-be formed Commission on Microbial Criteria has considered the subject and presented its opinions. The Commission will be asked to address such issues as likely products to be examined, the indicator organisms/tests to be used, and the appropriate type and application of criteria to be developed. Although no acute hazards to health are included in this type of survey, the development of information on indicator organisms is essential to demonstrate hazardous practices and that adulterated foods are unsuited for human consumption. These needs place microbiological quality survey work below imminent hazards to health within the Foods Program, but at the same level as the development of defect action levels for filth and decomposition in foods.

QUESTION: If the survey is continued how does the Agency plan to use the results of the survey of food processing plants?

ANSWER: If the data obtained from the survey supported it, we had planned to propose a microbial defect action level for dehydrated potato processing which would have been used to measure industry compliance with good manufacturing practices. However, because we plan to refer the issues raised by the surveys to the proposed microbiological criteria Commission for recommendations on the appropriateness and application of suitable criteria, we are not certain how the survey results will eventually be used.

QUESTION: Will FDA propose regulations establishing standards for bacterial levels in foods?

ANSWER: No, the Agency does not intend to propose such regulations.

QUESTION: If there is no health hazard, what benefit would these requirements produce?

ANSWER: If no health hazard were evident or could be reasonably expected to occur, the benefits to the consumer would be solely in the area of aesthetics. It should be pointed out however, that history has shown that microbes considered non-pathogenic at a certain point in time may later be shown to have potentially deleterious health consequences as advances in biomedical science and technology occur.

QUESTION: What funding level has been requested for funding of microbiological survey work?

ANSWER: No funds have been requested in FY 1986 for conducting non-pathogenic surveillance of foods, such as the survey of dehydrated potatoes.

QUESTIONS SUBMITTED BY SENATOR KASTEN

Bovine Growth Hormone

QUESTION: Research done over the last several years at Cornell University points to the possibility that bovine growth hormone may dramatically increase the productivity of dairy cows.

I understand that before B.G.H. can be used commercially, it must be cleared by FDA. How long do you expect it will take for B.G.H. to be approved for commercial use by FDA?

ANSWER: Scientific reviewers in FDA are familiar with the work conducted at Cornell University on the use of bovine growth hormone to increase milk production in dairy cows. They are of the opinion that no unusual or especially time-consuming studies will be needed to support the approval of this production aid use.

New Animal Drug Applications are evaluated in FDA's Center for Veterinary Medicine (CVM). Normally, a drug's sponsor will initially file an investigational new animal drug exemption notice and begin a dialogue with scientific reviewers in CVM concerning the information needed to support approval of a new animal drug application. The major areas to be addressed in an application are: (1) the drug's purity, stability and methods of manufacture, processing and packaging; (2) safety of the drug to the target animal species and the level and safety of any residues of the drug incurred in animal-derived human food under its prescribed conditions of use; (3) evidence demonstrating effectiveness of the drug for its label-recommended conditions of use; and (4) an analysis of any environmental impact associated with the use of the drug.

Following submission of a new animal drug application, the Agency has 180 days during which it must approve or deny approval of the application or notify the sponsor that the application is incomplete because the information provided is insufficient to determine safety and efficacy of the drug. This time frame is met for virtually all new animal drug applications received in the Center.

From the time of submission of an application to approval, an average of three years has generally elapsed; this time is very dependent on the completeness of the application at the time of its initial submission. The time for approval is significantly shorter for those drugs whose sponsors work closely with the Center on planning, study protocols, etc., as early as possible in the development process. Thus, FDA cannot speculate at this time when B.G.H. might become commercially available.

Irradiation

QUESTION: Many people view the irradiation of pork as the most effective means of destroying the bacteria that cause trichinosis, and of increasing the public's acceptance of pork.

Currently, the use of irradiation on pork is illegal except under special circumstances.

What are the legal obstacles to the commercial use of irradiation on pork?

What, in your view, are the non-legal (i.e., economic and psychological) obstacles?

ANSWER: Because a source of irradiation is a food additive under the Federal Food, Drug and Cosmetic Act, the Agency must establish a food additive regulation that is based on adequate and reliable data and that prescribes safe conditions of use before any radiation source may be legally used in this country to irradiate pork. We are currently evaluating a food additive petition for this use of irradiation. USDA may also have some requirements based on the Federal Meat Inspection Act but we would defer any questions on that Act to them.

We are not in a good position to evaluate economic or psychological obstacles to irradiation of pork because our role and efforts are directed toward the evaluation of safety and efficacy. Nevertheless, it is clear that public acceptance of irradiated foods presents an obstacle that must be overcome. The economic advantages or disadvantages of pork irradiation compared to other methods for control of trichina in pork are yet to be evaluated. For example, new assay methods may allow rapid detection of those carcasses that are infected with trichinae. One may choose to control trichina by irradiating all carcasses, or by assaying all carcasses and treating only those that are infected. Treatment could be by irradiation, freezing, or by diverting to thoroughly cooked foods. We have seen no evaluation of comparative economics of these options. (Note: trichinosis is caused by parasites, not bacteria.)

QUESTION: The FDA published preliminary regulations in the Federal Register on February 14, 1984, that would have, in effect, legalized the use of irradiation in doses of up to 100 kilorads on fruits and vegetables for commercial sale.

My understanding is that these regulations have never been either finalized or withdrawn.

What is the status of the proposed regulations, and why has a final decision been delayed for so long?

ANSWER: We are preparing and reviewing a final rule at this time. We have received well over 4,500 comments to that proposal and we must assure that each substantive issue raised is addressed. Some of the comments referred to data requiring extensive review or to studies not in our immediate possession. Others have raised complex issues requiring careful evaluation. We expect to issue a final rule this year.

QUESTIONS SUBMITTED BY SENATOR HATFIELD

SULFITES

QUESTION: Last month, a ten year old girl from Salem, Oregon, ate guacamole treated with a significant amount of sulfites. She went into anaphylatic shock an hour later and was brain-dead by the time she reached the hospital.

The family of the girl visited my office just last week and recounted their experience. Their story was heart-rending, yet it is also extremely tragic because her death might have been averted. It is my understanding that the scientific advisory panel on sulfites for FDA recommended a ban on sulfites in fresh fruits and vegetables and cut or frozen potatoes. Is that a correct understanding? When was that decision reached and why was it not implemented? It is also my understanding that FDA has ignored the recommendations of that panel and refused to ban sulfites. Is that correct? Please identify the agencies and individuals involved in the decision making process. Could you also provide me with a copy of any recommendations, reviews or studies made by that panel.

ANSWER: The scientific advisory panel on sulfites issued its final report on January 31, 1985. In its final report, the panel recommended that FDA use the regulatory process to encourage food processors to discontinue the use of sulfites on fresh fruits and vegetables and precut potato products.

FDA has not ignored the recommendations of the panel. FDA is currently evaluating the panel's recommendations. Traditionally, labeling has been FDA's basic approach for ensuring the safety of food that contains substances that induce adverse reactions in a susceptible subpopulation. The Agency has taken action to require labeling for packaged food and the declaration of the use of sulfites by restaurants. However, FDA is considering additional action on sulfites in light of the panel's recommendations.

The safety concerns related to the use of sulfites in food are being addressed within FDA's Center for Food Safety and Applied Nutrition, whose Director is Sanford A. Miller, Ph.D.

I will provide a copy of the Panel's final report for the record.
[The information follows:]

REEXAMINATION OF THE GRAS STATUS OF SULFITING AGENTS

NOTICE

The Life Sciences Research Office (LSRO), Federation of American Societies for Experimental Biology (FASEB), provides scientific assessments on topics in the biomedical sciences. Reports are based upon comprehensive literature reviews and the scientific opinions of knowledgeable investigators engaged in work in relevant areas of biology and medicine.

This report was developed for the Center for Food Safety and Applied Nutrition, Food and Drug Administration (FDA) in accordance with the provisions of Task Order #5 of Contract No. 223-83-2020. FASEB recognizes that the safety of Generally Recognized as Safe (GRAS) substances is of national significance and that its resources are particularly suited to marshaling the opinions of knowledgeable scientists to assist in this reexamination of the GRAS status of sulfiting agents.

During the course of the evaluation of the GRAS substances by the Select Committee on GRAS Substances (SCOGS) (1972-1982), FASEB and FDA agreed that when additional information and data became available subsequent to completion of an evaluation report, the FDA could request review and evaluation of the supplemental information and data. Based upon the evaluation of all available data, the Select Committee would prepare a supplemental report. While the Select Committee on GRAS Substances was terminated in 1982, similar mechanisms for review and evaluation have been maintained in FASEB by the LSRO.

This report was prepared by an ad hoc Review Panel on Reexamination of the GRAS Status of Sulfiting Agents. Members of the Panel and others who assisted in preparation of the report are identified in Section VIII. The scientists selected as members of the Panel were chosen for their qualifications, experience, and judgment with due consideration for balance and breadth in the appropriate professional disciplines. Certain members of the Panel were formerly members of the Select Committee on GRAS Substances and participated in the review of several hundred GRAS substances including sulfiting agents. The review of the sulfiting agents resulted in publication of the report, "Evaluation of the Health Aspects of Sulfiting Agents as Food Ingredients" (SCOGS, 1976).

The ad hoc Review Panel's evaluation of currently available information and data has been made independently of FDA or any other group, governmental or nongovernmental. The ad hoc Panel, as consultants to LSRO, and the LSRO accept responsibility for the contents of the report.

The ad hoc Review Panel issued a tentative report on October 15, 1984. The tentative report was made available to the public for review in the Dockets Management Branch (HFA-305), FDA, Room 4-62, 5600 Fishers Lane, Rockville, Maryland 20857, and at the LSRO at the address appearing on the title page. As announced by FASEB, and by FDA in the Federal Register, an opportunity (open meeting) was provided for any interested person to appear before the ad hoc Review Panel on Reexamination of the GRAS Status of Sulfiting Agents to make oral presentation of data, information, and views on the substances covered by the tentative report. The data, information, and views presented at the open meeting were considered by the ad hoc Panel in reaching its final conclusions.

The final report was approved by the ad hoc Review Panel and the Director of LSRO, and subsequently reviewed and approved by the LSRO Advisory Committee (which consists of representatives of each constituent society of FASEB) under authority delegated by the Executive Committee of the Federation Board. Upon completion of these review procedures, the report was approved and transmitted to FDA by the Executive Director of FASEB.

While this is a report prepared by a Panel convened by an office of the Federation of American Societies for Experimental Biology, it does not necessarily reflect the opinion of FASEB, its constituent societies, or the individual members of each constituent society.

January 28, 1985
(date)

Kenneth D. Fisher, Ph.D.
Director
Life Sciences Research Office
FASEB

I. INTRODUCTION

This reexamination of the health aspects of using sulfiting agents as food ingredients is based partly on the information contained in a scientific literature review (monograph) furnished by the Food and Drug Administration (FDA) (The Franklin Institute Research Laboratories, 1972), which summarized the world's scientific literature from 1920 through 1972*, and the assessment of this information by the Select Committee on GRAS Substances (SCOGS) in 1976*. In its 1976 report on the evaluation of the health aspects of sulfiting agents (potassium bisulfite, potassium metabisulfite, sodium bisulfite, sodium metabisulfite, sodium sulfite, and sulfur dioxide) used as food ingredients, the Select Committee (SCOGS, 1976) concluded that:

> There is no evidence in the available information on potassium bisulfite, potassium metabisulfite, sodium bisulfite, sodium metabisulfite, sodium sulfite, and sulfur dioxide that demonstrates, or suggests reasonable grounds to suspect, a hazard to the public when they are used at levels that are now current and in the manner now practiced. However, it is not possible to determine, without additional data, whether a significant increase in consumption would constitute a dietary hazard.

Based in part upon the report of the Select Committee, the FDA, in the Federal Register of July 9, 1982, proposed to affirm the use of four sulfiting agents (potassium metabisulfite, sodium bisulfite, sodium metabisulfite, and sulfur dioxide) as GRAS (FDA, 1982). At the same time, FDA proposed not to affirm the use of potassium bisulfite and sodium sulfite as GRAS. Subsequent to the completion of the Select Committee's report and the publication of the FDA proposal, additional information and data on uses of sulfiting agents in foods as well as reports of health effects possibly associated with sulfiting agents have become available.

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* These documents (PB-221 217 and PB-265 508, respectively) are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161.

Early in 1984, the FDA requested that the Federation of American Societies for Experimental Biology (FASEB), through its Life Sciences Research Office (LSRO), convene an ad hoc Panel on Reexamination of the GRAS Status of Sulfiting Agents to consider the recent scientific publications and new information submitted to FDA in response to its 1982 proposal on the affirmation of the GRAS status of sulfiting agents. The ad hoc Panel was askad to address the following question:

> "In view of the currently available information relevant to the use and safety of sulfiting agents, which of the five types of conclusions* for the appraisal of GRAS substances that were developed by the Select Committee now applies to the use of sulfiting agents? The conclusion which is reached should be supported by a discussion of the rationale behind that conclusion."

To insure completeness and currency as of the date of this report, the information and data received from FDA have been supplemented by searches of scientific and statistical reference sources and compendia that are generally available; use of new, relevant books and reviews and the literature citations contained in them; consideration of current literature citations obtained through computer retrieval systems of the National Library of Medicine; searches for relevant data in the files of FDA; inquiry of leading investigators in the field and the combined knowledge and experience of members of the ad hoc Review Panel and the LSRO staff. In addition, the Federal Register of July 9, 1984 (FDA, 1984a) announced the opportunity for all interested parties to submit information, data, and reports on the health effects of sulfiting agents. The Panel made its tentative report on the health aspects of using sulfiting agents as GRAS food ingredients available for public inspection on October 15, 1984 and an opportunity to appear before the ad hoc Panel at an open meeting to make oral presentation of data, information, and views on this tentative report was published in the Federal Register of October 25, 1984 (FDA, 1984b). The open meeting was held on November 29, 1984. Individuals and organizations who made or submitted comments on the tentative report are listed in Section IX of this report.

As indicated in the Food, Drug, and Cosmetic Act [21 USC 321(s)], GRAS substances are exempt from the premarketing clearance that is required for food additives. The Code of Federal Regulations**(CFR) [21 CFR 170.30], as revised April 11, 1984, states that general recognition of safety may be based only on the views of experts qualified by scientific training and experience to evaluate the safety of substances directly or indirectly added to food. This section of the Code also indicates that expert judgment may be based on published studies which may be corroborated by unpublished studies and other data and information or, in the case of a substance used in food prior to January 1, 1958, through experience based on common use in food. FDA recognizes further [21 CFR 170.3] that it is impossible in the present state of scientific knowledge to establish with complete certainty the absolute harmlessness of the use of any substance.

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* See Appendix

**Office of the Federal Register, General Services Administration. 1984. Code of Federal Regulations. Title 21: food and drugs, parts 170-199 rev. Washington, D.C.: U.S. Government Printing Office.

LSRO's ad hoc Review Panel on Reexamination of the GRAS Status of Sulfiting Agents made its evaluations of these substances in full recognition of the foregoing provisions. In reaching its conclusions, the ad hoc Panel, in accordance with FDA's guidelines, has relied primarily on the absence of substantive evidence of, or reasonable grounds to suspect, a significant risk to the public health. These conclusions will need to be reviewed as new or better information becomes available.

In this context, the LSRO ad hoc Review Panel has reviewed the available information on sulfiting agents and submits its interpretation and assessment in this report, which is intended for the use of FDA in determining the future status of these substances under the Federal Food, Drug, and Cosmetic Act, as amended.

II. BACKGROUND INFORMATION

"Sulfiting agents" is a term used to designate sulfur dioxide and any one of the five sulfite salts that may be used in some foods. Since the sulfite salts release sulfur dioxide, the effective agent under conditions of food processing, levels of sulfiting agents are usually expressed as sulfur dioxide equivalents (SDE). Sulfiting agents effectively serve a number of purposes in food processing including the inhibition of nonenzymatic browning; the inhibition and control of microorganisms; the inhibition of various enzymatic reactions such as enzymatic browning; as antioxidants and reducing agents, including dough conditioners; as bleaching agents; as processing aids; and, secondarily as pH control and stabilizing agents (Taylor and Bush, 1983).

To accomplish these purposes, sulfiting agents are added under controlled conditions during the processing of some foods. Because good manufacturing practice limits the amount added, the concentration of sulfite at maximum treatment levels is usually a small fraction of 1%. The amount of residual sulfite in processed foods as consumed will vary depending on the length and nature of subsequent storage and on the manner of preparation of the food for consumption.

In recent years, with the increased popularity of salad bars in restaurants and other food service establishments, sulfiting agents have come to be used by the restaurateur to retain the "freshness" of some salad items. They are also used by some suppliers of produce intended for salad bar use or of vegetables, particularly potatoes, intended for cooking. A large number of commercial products, consisting principally of sulfite salts, are available for these purposes. Labels direct users to dissolve the product (usually one tablespoon in a gallon of water), to dip the fresh produce in the solution for a stated period of minutes, and to drain the produce before making it available to consumers. The degree of care exercised in the control of such procedures would be expected to vary, leading to variation in the sulfite content of the treated products. However, current information indicates that use in food service establishments of sulfiting agents on salad bar items and the use of these agents by suppliers of fresh and ready-to-cook produce to such establishments have declined sharply in the last 2 years. For example, the National Restaurant Association, which advised its members in February 1983 to cease applying sulfites at retail levels, found in a subsequent survey that less than 4% of its members were using sulfiting agents (Neville, 1983). The Produce Marketing Association reported in November 1984 that a recent survey showed that 5% of its members were using sulfiting agents and only 2% on a regular basis (Ahlberg, 1984). The Produce Marketing Association concluded that, for all intents and purposes, their industry no longer uses sulfiting agents on items to be consumed in the fresh state. They also concluded that sulfites are still being used only in isolated instances on items that are subsequently washed and cooked.

The CFR permits use of potassium bisulfite ($KHSO_3$), potassium metabisulfite ($K_2S_2O_5$), sodium bisulfite ($NaHSO_3$), sodium metabisulfite ($Na_2S_2O_5$), sodium sulfite (Na_2SO_3), and sulfur dioxide (SO_2) as GRAS ingredients provided that they are not used in meats or foods recognized as a source of thiamin (vitamin B_1). Specific GRAS listings of sulfiting agents for use as chemical preservatives are to be found in the following sections of the CFR*: potassium bisulfite [21 CFR 182.3616]; potassium metabisulfite [21 CFR 182.3637]; sodium bisulfite [21 CFR 182.3739]; sodium metabisulfite [21 CFR 182.3766]; sodium sulfite [21 CFR 182.3798]; and, sulfur dioxide [21 CFR 182.3862]. Other sections of the CFR pertaining to the use of sulfiting agents are: caramel [21 CFR 73.85(2)]; dextrose monohydrate [21 CFR 168.111]; glucose syrup [21 CFR 168.120]; bleached starch [21 CFR 172.892(b)]; boiler water additives [21 CFR 173.310(c)]; cellophane [21 CFR 177.1200(c)]; water-soluble hydroxyethylcellulose film [21 CFR 177.1400]; and wine [27 CFR 240.1051]. The CFR listings for dextrose monohydrate, glucose syrup, and bleached starch limit residual sulfur dioxide concentrations in these products to not more than 20, 40, and 500 ppm, respectively. Food Chemicals Codex specifications place an upper limit of 80 ppm residual sulfur dioxide in modified food starches (NRC, 1981). In addition to the GRAS and regulated food additive uses of the sulfiting agents listed above, prior sanctions and advisory opinion letters for these substances have been issued by FDA. Prior sanctions allow use of sodium sulfite and sulfur dioxide in molasses, dried fruits, and foods that are not good sources of vitamin B_1 (thiamin) and use of sodium sulfite as dips to prevent darkening of fresh-peeled uncooked potatoes and to control the incidence of black spot in shrimp (FDA, 1982). Advisory opinions have addressed the following uses of specific sulfiting agents: potassium metabisulfite is permitted at levels up to 1% by weight as a stabilizer for preparation of dry vitamin A palmitate; sodium bisulfite is permitted in wash water for mushrooms; sodium bisulfite is permitted as a preservative in citron brining; sulfur dioxide is permitted at levels up to 400 ppm in corn syrups that are subsequently applied to meats; and, sodium sulfite is permitted at levels up to 1% in the wash water of sweet potatoes (FDA, 1982). Letters to the Food and Drug Administration subsequent to publication of the proposed rule in 1982 identify additional uses. The maximum sulfur dioxide level permitted in raw shrimp is 100 ppm (FDA, 1985).

The Food Chemicals Codex (NRC, 1981) provides specifications for food grades of potassium metabisulfite, sodium bisulfite, sodium metabisulfite, sodium sulfite, and sulfur dioxide. No specifications for food grade potassium bisulfite have been established.

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* Office of the Federal Register, General Services Administation. 1984. Code of Federal Regulations. Title 21: food and drugs, parts 1-99, 100-169, 170-199, 300-499, 800-1299, 1300 to end rev. and Title 27: alcohol, tobacco products and firearms, parts 200 to end rev. Washington, D.C.: U.S. Government Printing Office.

With the exceptions noted above, specific limits are not currently set for levels of use of sulfiting agents in most foods. However, sulfiting agents are required to be used in accordance with good manufacturing practice which restricts the quantity added to food to levels not to exceed those reasonably required to accomplish their technical effects in food [21 CFR 182.1]. The residual amount of SDE's in foods as consumed is generally less than the amount added during processing because sulfites can combine with other food components, are liberated as sulfur dioxide, or are oxidized to sulfate.

III. CONSUMER EXPOSURE DATA

Three basic pieces of information are needed for estimating intake of food ingredients: a) the amount of the ingredient present in the various components of a diet at the time of consumption; b) the kinds of foods in the daily diet and the frequency with which each is consumed; and, c) average portion size for the various foods consumed. From this information it is possible to compute the weight of the ingredient consumed from each food in the diet by multiplying the weight percent of the ingredient in the food by the portion size and the frequency with which it is consumed.

Information on the kinds of foods consumed, the frequency of consumption, and the usual portion size can usually be obtained with reasonable accuracy. However, obtaining reasonably accurate information on the amount of an added ingredient present in the food at the time of consumption is much more difficult. This is especially true with substances like the sulfiting agents which can be lost from foods during processing, storage, distribution, and home preparation. True loss can occur through leaching or through volatilization of sulfur dioxide at pH below 4; loss of sulfite, per se, i.e., loss of "free sulfite" can occur through reversible reactions with other food constituents, particularly those containing aldehyde or ketone groups. Residual free sulfite (gaseous or hydrated sulfur dioxide, bisulfite and sulfite ions) is usually determined by iodometric titration following acidification to reduce the rate of dissociation of reversibly bound sulfites. Total sulfite, which consists of free sulfite and reversibly reacted sulfite, is defined as that measured, for example, by the Monier-Williams analytical method (AOAC, 1984). Sulfite contents of foods and beverages are usually reported as total sulfite.

Reversibly bound sulfite may account for most of the sulfite present in wines (Burroughs and Sparks, 1973a) and perhaps in other beverages. The combined forms of sulfite may be stable to digestive processes. Sulfite in wine reacts with acetaldehyde, pyruvic acid, 2-ketoglutaric acid, galacturonic acid, and other carbonyl compounds that may be present (Burroughs and Sparks, 1973b). Acetaldehyde binds bisulfite strongly; the dissociation constant of its bisulfite compound is 1.4 to 2.4 x 10^{-6} over the pH range 2.0 to 6.0 (Burroughs and Sparks, 1973b). The acetaldehyde present in some wines may bind 100 ppm SDE (20 mg/200 g serving) and little of this would be expected to be released in the stomach on ingestion. Although the bisulfite compounds of the other carbonyl compounds in wine have larger dissociation constants than that of acetaldehyde and would release a greater percentage of their bound sulfite on dilution, some would be expected to be retained in the bound form at pH levels in the stomach.

In laboratory analyses, under the strongly acidic, elevated temperature conditions of the Monier-Williams method, carbonyl bisulfite compounds are dissociated and both free and bound sulfite are converted to sulfur dioxide. However, all reaction products are not converted to sulfur dioxide under the conditions of the Monier-Williams analysis. Some sulfite is oxidized to sulfate in certain foods during processing (Thewlis and Wade, 1974). Furthermore, in some cases sulfite reacts with food components to produce organic sulfur compounds that are stable under the conditions of the Monier-Williams analytical method. Several examples can be cited. In the laboratory, dehydration of potatoes, cabbage, and carrots using ^{35}S-sulfur dioxide, about 55-65% of residual ^{35}S was present in stable organic compounds and not released as SO_2 in a modified Monier-Williams procedure (Gilbert and McWeeny, 1976). After 6 months storage of strawberries in ^{35}S-sulfite solution, 62% of the total ^{35}S present in the berries was recovered as sulfur dioxide by the Monier-Williams method, but 32% was present as irreversible reaction products. Only about 3% of residual ^{35}S in jam prepared from the strawberries was recoverable as sulfur dioxide (McWeeny et al., 1980). Some of the stable reaction products present in dehydrated cabbage have been identified as 3-deoxy-4-sulfoosuloses, derived from the reaction of sulfite with reducing sugars and ascorbic acid (Wedzicha and McWeeny, 1975).

The foregoing discussion indicates that sulfites are present in foods and beverages in one or more of three forms: free sulfite, reversibly bound sulfite, and as stable reaction products. The role of these forms as they occur in foods in eliciting adverse reactions, i.e., their biological activity, has not been defined. Taylor and Bush (1983) have suggested that free sulfite in food is primarily responsible for adverse reactions in sulfite-sensitive individuals. However, exposure studies to reversibly bound sulfite compounds such as acetaldehyde hydroxysulfonate have not been reported nor have tests been reported with irreversibly bound sulfite compounds.

Similarly, in most animal studies of chronic toxicity, sulfite salts are fed as dry mixtures with other components of the diet or as a component of the drinking water. Much less interaction with dietary components to produce irreversibly bound sulfur compounds would be expected in such animal diets than would likely occur in processed foods containing added sulfites, particularly those subjected to high temperatures in the processing operation and/or long storage times. Thus, animal studies are most likely to reflect the effect of free sulfite, or that which is reversibly bound and released in vivo, and are less likely to reflect the physiological and toxicological properties of the stable organic sulfur compounds that may be present in many sulfited foods. Studies with the isolated sulfur compounds would be necessary to elucidate their biological properties.

After considering all available information, the following data sources were used in estimating food intake of sulfites in the U.S.: a) the 1977 Survey of Industry on the Use of Food Additives by the National Research Council (NRC, 1979); b) responses of the food industry to FDA's proposed order on the GRAS status of sulfites in 1982 (FDA, 1982); c) the 1977-1978 National Food Consumption Survey (NFCS) of the U.S. Department of Agriculture (Pao et al., 1982; USDA, 1983a,b); d) Agricultural Statistics (USDA, 1983c) and other USDA statistical publications (USDA, 1984 a,b); and, e) U.S. Imports for Consumption and General

Imports (USDC, 1984). Using information obtained from these sources supplemented by contacts with manufacturers and users in certain instances, Table 1 was prepared to assemble the following information: added and residual levels of sulfiting agents in processed foods, estimated level of sulfites in the food as prepared for consumption, human intake of specific foods and/or food categories, and estimated per capita daily intake of sulfites. All sulfite levels given are total sulfites expressed as sulfur dioxide equivalents (SDE), i.e., the proportion of the weight of the various sulfiting agents that can dissociate into sulfur dioxide. The added and residual SDE levels in Table 1 are the levels reported in the NRC 1977 survey, those reported in comments to FDA after July 1982 and/or to LSRO after July 1984, and those reported to LSRO in written statements commenting on the Panel's tentative report (Matthys, 1984; Mosebar, 1984a; Taylor, 1984b). Levels for a given food reported in the 1977 NRC Survey are generally weighted mean values obtained by weighting the added or residual level of each company reporting the use of sulfite in the food by its fraction of the total poundage of sulfites for all uses reported by these companies. Information on the analytical methods used and the standard deviations of the values listed in Table 1 were not reported for most food items. For some products, levels were stated to be calculated values based on reported sulfite concentrations in the ingredients, e.g., the sucrose, high fructose corn syrup, and caramel ingredients in soft drinks.

Several characteristics of the 1977 NRC Survey (source a) should be noted because they have a bearing on the reliability of the SDE intake data reported by NRC. There are factors favoring overestimation of intake values. When a processor reported the addition of a sulfite to a single food, the NRC calculation procedure caused all foods in the pertinent NRC food subcategory to be assigned the reported kind and level of added or residual sulfite. Thus, the NRC procedure typically resulted in an overestimation of intake of the substance, sometimes by a rather substantial margin. Furthermore, food processors often reported the amount of sulfite added to the food rather than the amount remaining at the time of consumption. As explained earlier, sulfites can be lost during processing, storage, distribution, and home preparation, and in many processed foods much of the added sulfite may be converted to reacted forms. Finally, no correction was made for plate waste.

There are also factors favoring underestimation of intake values. Consumption of alchoholic beverages away from home was probably under-reported in the data on frequency of consumption gathered by the Market Research Corporation of America (Chicago, IL) and used by the NRC. Alcoholic beverages, especially wine, can contribute substantially to intake of sulfites. Food service establishments were not included in the 1977 NRC survey and use of proprietary sulfite solutions on salad bar vegetables was not considered. Salad bars can be a substantial source of sulfite intake.

NRC found no way to correct accurately for the factors that contribute to errors in estimation of intakes. Using the NRC data, the Panel has estimated per capita daily sulfite intake (as SDE) including consumption of wine and/or beer to be 19 mg, the 90th percentile intake to be 43 mg, and the 99th percentile 163 mg. These estimates were made in the following manner. The NRC data revealed the mean per capita daily consumption in SDE to be 4.8 mg of potassium metabisulfite, 17 mg of sodium bisulfite, 0.27 mg of sodium metabisulfite, 7.0 mg of sulfur dioxide, and 1.3 mg of sodium sulfite. By assuming that use of one of these sulfiting agents in a food subcategory precludes use of others and using only the contribution of the sulfiting agent that accounts for the largest consumption, the figures above can be corrected and become respectively: 0, 12, 0, 6.7, and 0.4 for a total of 19 mg. The 90th percentile daily consumption figures, similarly corrected, are respectively: 0, 25, 0, 16, and 1.6 for a total of 43 mg; the 99th percentile daily consumption figures, similarly corrected, are respectively: 0, 33, 0, 129, and 1.1 for a total of 163 mg.

Several characteristics and problems in interpreting data in Table 1 should be recognized because they too have bearing on the reliability of the data:

1) In Table 1, there is no relation, necessarily, between the values reported in the "Added" and "Residual" columns for a given food since companies frequently reported values for only one, not both. Exceptions are the values given for the first two items, pie doughs and the tortilla shells in the Baked Goods and Baking Mixes Category. Added and residual levels as processed, and level in the product as consumed (after baking the dough) were reported for the same product. For tortilla shells the levels were 25, 25, and 0.3 ppm, respectively. Levels listed for the "Unspecified" subcategory are those designated by reporting companies as used in a general category, e.g., baked goods and baking mixes and thus may apply to one of the subcategories listed in Table 1, or to unidentified subcategories not listed. For most food products, relatively few companies, as compared to the total number manufacturing the food product, reported added or residual levels of sulfites. Thus, the generality of the use of sulfites in various food products manufactured by different companies as well as the representativeness of reported levels of addition may be inaccurate. It is also possible that sulfites are used in foods not reported in Table 1. Answers to such questions were sought by contacts with experts in food science and technology in USDA, universities, industry and industry associations, and from reports in the literature; the estimated sulfite levels in foods as consumed (Table 1) reflect the information obtained.

2) Reports of the NFCS (USDA, 1983b) generally identify the quantity of foods eaten as such by individuals in a 3-day survey period or used by households in a week during the survey year, April 1977 through March 1978. Not included are the quantities of those foods which were consumed as ingredients in processed foods. Examples of such foods that are reported to contain sulfites are sugar, corn syrup, dried fruit, corn starch, modified corn starch, and dextrose. The latter three substances are consumed almost entirely as ingredients of processed foods. In order to include the total contribution of the residual sulfite in these substances, per capita daily intake values calculated from total annual consumption of these products are entered in Table 1. Total annual consumption of sucrose and dried fruits was obtained from USDA statistics, and was provided by Corn Refiners Association, Inc. (Liebenow, 1984) for the corn-derived products.

Daily intake of sugar calculated from total annual consumption in 1982 (sucrose plus dextrose) is 99 g/capita as compared with 4.35 g/capita reported for sugar consumption by individuals (Pao et al., 1982). The respective intakes for corn syrup are 26 and 0.30 g/capita/day. Using intakes based on total annual consumption of these foods results in some duplication in the calculation of SDE intake. Sugar is a major component of jams, jellies, and gelatin desserts that also are entries in Table 1, and both sugar and corn syrup (high fructose corn syrup) are used as sweeteners in soft drinks, also an entry in Table 1.

3) Several dried fruits to which sulfites were reported to be added appear in Table 1. Contact with the dried fruit industry revealed that prunes and dark raisins, which constitute about 70% of all dried fruit, are not treated with sulfiting

agents. Dried apples, apricots, some figs, peaches, pears, and golden raisins are treated with sulfur dioxide (Mosebar, 1984b). Household consumption of dried fruits other than prunes and raisins was reported as 0.01 lb/household/week or 0.235 g/capita/day based on an average of 2.76 members per household (USDA, 1983a). However, in addition to that purchased as such, dried fruit is also purchased and eaten as an ingredient of breakfast cereals, baked goods and baking mixes, snacks such as apple bits, and in reconstituted form in some pie fillings. In order to include such uses, daily intake (0.49 g/capita/day) was based on per capita consumption of all dried fruits less that of dark raisins, prunes, and dates as reported by USDA (1984a). The SDE level in dried fruits as consumed was estimated to be 1200 ppm based on information submitted by the Dried Fruit Association of California (Mosebar, 1984a). In contrast, a study in England found the average SDE content of 164 samples of dried fruit, excluding prunes, to be 275 ppm at the point of sale (Howlett, 1980).

4) In estimating the average SDE concentrations in the total intake of fresh vegetables eaten raw, 39.1 g/capita/day (Pao et al., 1982), the contribution of fresh vegetables eaten in restaurants, cafeterias, and other food service establishments was estimated as follows. It was assumed that the percent of fresh vegetables eaten raw in food service establishments was the same as the percent of all vegetables obtained and eaten away from home (15.7%), as found in the NFCS (USDA, 1983b); or that 39.1 x 0.157 = 6.1 g/capita/day is eaten in food service establishments. From a poll of its membership in 1983, the National Restaurant Association found that 3.9% of 17,000 respondents reported the use of sulfites, a decrease from the 20% who reported use of sulfites in 1982 (Neville, 1983). The Panel increased this figure (3.9%) to 10% to allow for possible wider use among nonmembers of the NRA, higher sulfite concentration than that assumed, and a possible disproportionate share of the market held by establishments that use sulfites. An SDE concentration of 950 ppm in cut lettuce was found in experiments with commercial sulfite solutions used according to directions (Taylor, 1984a). This value is assumed to be the level in leafy vegetables and also in other fresh vegetables served in restaurants and other food service establishments among the 10% which may use sulfiting agents.

Sulfite consumed in these vegetables is 6.1 g x 10% x 950 ppm = 0.58 mg/capita/day. The fraction of mushrooms marketed fresh and treated with sulfites (about 10%) contributes about 0.003 mg SDE/capita/day to the total SDE consumed in fresh vegetables. The average SDE level in all fresh vegetables eaten raw based on the contribution of mushrooms and sulfite-treated vegetables as discussed above is 14.3 ppm. In order to allow for possible unidentified (e.g., unspecified uses, Table 1), the average was increased by about 10% to 16 ppm.

The NFCS (USDA, 1983b) provides data on the percentage of the population that drank wine on only one day of the 3-day dietary survey, on only two days of the three, and on all three. For the respective groups, the daily intake of SDE from wine is calculated to be 11, 22, and 36 mg based on an average SDE level of 150 ppm. The average daily intake for all three groups, i.e., for those who drank wine on at least one of the 3 days, is 17 mg. Only 4.8% of the population surveyed reported use of wine and per capita daily intake for the total population is calculated to be 5.4 g of wine and 0.81 mg SDE. It appears, however, that consumption of wine was under-reported in the NFCS. Based on USDA reports, wine amounting to 21 g/capita/day entered U.S. distribution channels in 1977. In 1983, 24.5 g/capita/day were distributed (USDA, 1984a); this quantity would contain an estimated 3.68 mg SDE.

Information on other food categories is provided in the footnotes to Table 1.

Table 1. Levels of Sulfiting Agents (Sulfur Dioxide Equivalents, SDE) in Foods and Estimated Per Capita Daily Intake

Food Category and Subcategory	Level in Product as Processed ppm				Level in Product as Consumed ppm		Food Intake[4] g/capita/d	SDE Intake[5] mg/capita/d
	NRC 1977 Survey[1]		Reported to FDA/LSRO[2]					
	Added	Residual	Added	Residual	Reported[2]	Estimated[3]		
BAKED GOODS and BAKING MIXES[6]								
Cookies	100		250			5	6.2	0.031
Cake w/dried carrots			200		0–20	10	0.1	0.001
Crackers			250			5	2.9	0.014
Sheeting doughs			60	40				
Sheeting doughs					<1.5			
Pie dough			25	25	0.3			
Pie dough			155–215		<6			
Pie dough (frozen)[7]				5.1, 20.4				
Pizza dough (frozen)[7]				11.6, 20.4				
Pizza crust			2500		0.3	5	1.3[8]	0.007
Pie crust		0.3, 25	800			5	1.7[8]	0.009
Tortilla shells			25,200	25	0.3	5	1.6	0.008
Unspecified		27	≤125, ≤245					
GRAIN PRODUCTS[9]								
Corn starch				0, 0, <65		20	3.7	0.074
Modified corn starch								
Hominy		150[10]				20	0.1	0.002
Spinach pasta				5		5	0.1	0.001
Unspecified		160						

See footnotes at end of table.

Table 1. Levels of Sulfiting Agents (Sulfur Dioxide Equivalents, SDE) in Foods and Estimated Per Capita Daily Intake (continued)

Food Category and Subcategory	Level in Product as Processed ppm				Level in Product as Consumed ppm		Food Intake[4] g/capita/d	SDE Intake[5] mg/capita/d
	NRC 1977 Survey[1]		Reported to FDA/LSRO[2]					
	Added	Residual	Added	Residual	Reported[2]	Estimated[3]		
COFFEE/TEA								
Instant tea				95.6, 1210 50-1800	5-6		24	0.14
Liquid conc. tea			60[11]			5	1.2	0.006
Tea leaves				13.1, 32.5			95	
CONDIMENTS								
Olives[12]						2	0.7	0.002
Unspecified[12]	200		210					
Pickles/Relishes[13]	30					30	0.25	0.008
Salad dressing mix (dry)[14]				50		10	0.08	0.001
Vinegar[15]								
Malt Vinegar						10	0.06	0.001
Wine vinegar			150			75	0.24	0.018
DAIRY ANALOGS								
Filled milk[16]	185		200			200	0.15	0.03
FISH and SEAFOOD[17]						10	12	0.12
Dried cod				200				
Fabricated, frozen	200							
Unspecified fish product				23				
Shrimp, fresh (domestic and imported)				0-295	4-36		0.6	

See footnotes at end of table.

Table 1. Levels of Sulfiting Agents (Sulfur Dioxide Equivalents, SDE) in Foods and Estimated Per Capita Daily Intake (continued)

Food Category and Subcategory	Level in Product as Processed ppm				Level in Product as Consumed ppm		Food Intake[4] g/capita/d	SDE Intake[5] mg/capita/d
	NRC 1977 Survey[1]		Reported to FDA/LSRO[2]					
	Added	Residual	Added	Residual	Reported[2]	Estimated[3]		
FRESH FRUIT[18]						5	42.6	0.213
Fruit salad				500				
Grapes				7-20		1-5	3.9	
Unspecified		15						
DRIED FRUIT[19]						1200	0.49	0.59
Apples				1400				
Apricots, apples, peaches golden bleach raisins, mixed dried fruit			[2000-3500]	[1000-1750]				
Cherries with pits			[500-1000]	[250-500]				
Figs								
Kadota			[2000-3000]	[1000-1500]				
Calimyra			[800-1500]	[400-750]				
Pears			[1500-2500]	[750-1250]				
Tropical fruit: pineapple, mango, papaya			[1000-2000]	[500-1000]				
Cake with dried apple			200		0-20			
Raisins (golden)				1100				
Fruit filling, apple				35				
Fruit filling (unspec.)			500					
Unspecified	1100, 1500	1100, 575	≤4000	110, ≤2000, ≤3000				

See footnotes at end of table.

Table 1. Levels of Sulfiting Agents (Sulfur Dioxide Equivalents, SDE) in Foods and Estimated Per Capita Daily Intake (continued)

Food Category and Subcategory	Level in Product as Processed ppm				Level in Product as Consumed ppm		Food Intake[4] g/capita/d	SDE Intake[5] mg/capita/d
	NRC 1977 Survey[1]		Reported to FDA/LSRO[2]					
	Added	Residual	Added	Residual	Reported[2]	Estimated[3]		
FRUIT JUICES[20]								
CANNED & BOTTLED						5	42.6	0.243
Apple concentrate, imported				10		10	0.2	0.002
Cherry-berry				(<5)				
Grape, purple				0-5				
Grape, red				0-5		3	3	0.009
Grape, concentrate, domestic				0-3				
Grape, white				88-221, 70-105				
Grape, white, sparkling				60-125		85	0.3	0.025
Grape, pink, sparkling				167				
Grape, red, sparkling				60-100				
Grape, concentrate, imported				800		800	0.12	0.096
Lemon, non-frozen				160		160	0.04	0.016
Lime, non-frozen				237-277				
Lemon, frozen				(<10)				
Passion fruit punch				(<5)				
Prune				(<5)				
Fruit punch				(<5)				
Dietetic		1000						
Unspecified	100	85, 125, 0						

See footnotes at end of table.

Table 1. Levels of Sulfiting Agents (Sulfur Dioxide Equivalents, SDE) in Foods and Estimated Per Capita Daily Intake (continued)

Food Category and Subcategory	Level in Product as Processed ppm				Level in Product as Consumed ppm		Food Intake[4] g/capita/d	SDE Intake[5] mg/capita/d
	NRC 1977 Survey[1]		Reported to FDA/LSRO[2]					
	Added	Residual	Added	Residual	Reported[2]	Estimated[3]		
FROZEN FRUIT[21]						5	0.5	0.025
Unspecified		12						
CANNED FRUIT[22]								
Maraschino Cherry	150	150		50		50	0.3	0.015
Applesauce				(<5)				
Bartlett pear, heavy syrup				(<5)				
Crushed pineapple, heavy syrup				(<5)				
Fruits for salad				(<5)				
FRESH VEGETABLES[23]						16	39.1	0.63
Mushrooms			560		13		0.2	
Salad Bar					950		0.6	
Unspecified	45	45						
CANNED VEGETABLES[24]						5	65	0.325
Potatoes				(<5) 15		10	0.27	
Pickled cocktail onions						30		
Pickled peppers						30		
Sauerkraut (in glass)	610					30	0.12	
Sauerkraut (in metal cans)				(10-13)		12	1.1	
Unspecified	220							

See footnotes at end of table.

Table 1. Levels of Sulfiting Agents (Sulfur Dioxide Equivalents, SDE) in Foods and Estimated Per Capita Daily Intake (continued)

Food Category and Subcategory	Level in Product as Processed ppm				Level in Product as Consumed ppm		Food Intake[4] g/capita/d	SDE Intake[5] mg/capita/d
	NRC 1977 Survey[1]		Reported to FDA/LSRO[2]					
	Added	Residual	Added	Residual	Reported[2]	Estimated[3]		
DRIED VEGETABLES								
Potatoes[25]						75	3.2	0.24
Instant mashed				240, 475-500	40, 55-85	70		
Sliced				250-300	20-50	35		
Hash brown				470-560	100-150 }	90		
Hash brown				470-560	4, 40-65 }			
Unspecified			50, 75	50				
Unspecified		32		200, 2000 3000				
FROZEN VEGETABLES								
Potatoes[26]								
Commercial				5, 35 mean, 50 max	0, 20	20	1.7	0.034
Unspecified	11	11						
VEGETABLE JUICES[27]						5	10	0.05
Sauerkraut juice						100		
Tomato				≤10				
Vegetable juice, cocktail				≤10				
Clam-tomato				≤10				
Bloody Mary mix				≤10				
Vegetable juice blend				(<5)				
Unspecified			≤800					

See footnotes at end of table.

Table 1. Levels of Sulfiting Agents (Sulfur Dioxide Equivalents, SDE) in Foods and Estimated Per Capita Daily Intake (continued)

Food Category and Subcategory	Level in Product as Processed ppm				Level in Product as Consumed ppm		Food Intake[4] g/capita/d	SDE Intake[5] mg/capita/d
	NRC 1977 Survey[1]		Reported to FDA/LSRO[2]					
	Added	Residual	Added	Residual	Reported[2]	Estimated[3]		
SUGAR[28]								
Brown sugar				20 max, 20 mean		7	99	0.70
Confectioners sugar				24				
White, granulated, cane				5 ave.				
White, granulated, beet				20 max, 10 mean				
Beet				18-44				
Dextrose				1 ave.				
Fructose				17				
Frosting mix, vanilla				<10-46				
SWEET SAUCES								
Corn syrup[29]				20-40		30	26	0.78
High fructose corn syrup[29]				3		3	50	0.150
Fruit topping	60		500	60		60	3.4	0.203
Maple syrup	30					20	3	0.06
Molasses			100	<100, 300		125	0.27	0.033
Pancake syrup				5				
Unspecified			900					
JAMS and JELLIES[30]								
Domestic			<185 <200 <500	(<5), ≤10, <10-30	≤10	5	5.7	0.029
Imported				≤100		13.6	0.06	0.001
Pectin				<10-50				

See footnotes at end of table.

Table 1. Levels of Sulfiting Agents (Sulfur Dioxide Equivalents, SDE) in Foods and Estimated Per Capita Daily Intake (continued)

Food Category and Subcategory	Level in Product as Processed ppm: NRC 1977 Survey[1] Added	NRC 1977 Survey[1] Residual	Reported to FDA/LSRO[2] Added	Reported to FDA/LSRO[2] Residual	Level in Product as Consumed ppm: Reported[2]	Estimated[3]	Food Intake[4] g/capita/d	SDE Intake[5] mg/capita/d
GRAVIES, SAUCES[38]						75	3	0.225
Meat, tomato, milk, buttery, and specialty			112	75				
Unspecified			90					
BEVERAGES, NONALCOHOLIC[39]					3.3		139	0.46
Cola and pepper				4, <10				
Lemon-lime				1, (<5), <10				
Orange				1, <10				
Root beer				4, <10				
Ginger ale				1				
Grape				1				
Juice-containing carbonated beverage				4				
Others				1				
BEVERAGES, ALCOHOLIC[40]								
Beer	10, 15	4		80		10	38	0.38
Wine						150	{5.4 {24.5	0.81 3.68
table	150, 180	150, 180, 225 225						
red			50	350				
white			200	350				
vermouth		59, 87						

See footnotes at end of table.

Table 1. Levels of Sulfiting Agents (Sulfur Dioxide Equivalents, SDE) in Foods and Estimated Per Capita Daily Intake (continued)

	Level in Product as Processed ppm				Level in Product as Consumed ppm			
	NRC 1977 Survey[1]		Reported to FDA/LSRO[2]					
Food Category and Subcategory	Added	Residual	Added	Residual	Reported[2]	Estimated[3]	Food Intake[4] g/capita/d	SDE Intake[5] mg/capita/d
SOUPS[31]								
Dry mix				<10, 20	0, 0.5 mean 25 max	0.5 mean	9.3	0.005
Canned								
Vegetable beef				(<10)		0		
Chicken with noodles				(<10)		0		
GELATIN[32]						5	6.6	0.033
Flavored mix				5, <10-36		4		
Unflavored mix				<11, 14, 40		5		
SNACK FOODS								
Apple bits[33]				275				
Crackers, filled[34]	75							
Corn based snacks[35]				<1		0.5	0.29	0.0001
Pretzels[35]				<1		0.5	0.88	0.0005
PROTEIN ISOLATES, SOY[36]	36			40-100		2-5	0.25	0.017
NUT PRODUCTS								
Coconut[37]				5		5	0.5	0.003
Unspecified			25					

See footnotes at end of table.

Table 1. Levels of Sulfiting Agents (Sulfur Dioxide Equivalents, SDE) in Foods and Estimated Per Capita Daily Intake (continued)

Food Category and Subcategory	Level in Product as Processed ppm				Level in Product as Consumed ppm		Food intake[4] g/capita/d	SDE intake[5] mg/capita/d
	NRC 1977 Survey[1]		Reported to FDA/LSRO[2]					
	Added	Residual	Added	Residual	Reported[2]	Estimated[3]		
BEVERAGES, ALCOHOLIC[40] (cont.)								
Wine (cont.)								
fortified	120, 133	120, 133, 149						
sparkling		140, 175, 200						
pop/fruit		100						
nonsulfited				125				

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1. The 1977 Survey of Industry on the Use of Food Additives (NRC, 1979).

2. Values reported to FDA subsequent to the proposed order on the GRAS status of sulfiting agents published in the Federal Register, July 9, 1982 and/or to LSRO after July 9, 1984. Underlined figures are analytical values obtained by the Monier-Williams method and submitted by S.L. Taylor, University of Wisconsin. Figures in parentheses are analytical values obtained by the Monier-Williams method or ion chromatography by the National Food Processors Association (NFPA). Figures in brackets were submitted by the Dried Fruit Association of California (DFA). Taylor's data and that from NFPA and DFA were submitted to LSRO in written statements commenting on the Panel's Tentative Report.

3. Estimates made by LSRO staff.

4. Estimates of average values of daily food intake per capita are based on data from the National Food Consumption Survey (Pao et al., 1982; USDA, 1983a,b); USDA statistical sources (USDA, 1983c; 1984a,b); U.S. Imports (USDC, 1984), and information provided by industry associations and companies. Estimates based on food purchased and used in households have been increased by 11% to allow for food eaten in food service establishments (USDA, 1979).

5. Product of reported or estimated SDE level in food as consumed X intake of food.

6. Although all reported levels of sulfite in baked products as consumed were <6 ppm, a value of 5 ppm was selected because of the uncertainty in analytical results at low SDE levels. An exception is cake with dried carrots with a reported residual SDE level of 0-20 ppm

7. Analyses of commercial products reported to the Life Sciences Research Office, FASEB, by S.L. Taylor, Food Research Institute, University of Wisconsin, Madison, WI.

8. Estimates based on reported intakes of pies and pizzas (Pao et al., 1982) and percent of crust in pies (USDA, 1966).

9. Residual SDE levels as processed and intake data for corn starch and modified corn starch were reported by the Corn Refiners Association, Inc., Washington, DC. Intake level of spinach pasta is based on industry estimates; intake of hominy estimated by LSRO.

10. Based on values reported in the NRC 1970 survey of industry (NRC, 1972).

11. Proposed maximum level of use.

12. Canned and bottled olives were reported by the California industry not to contain added sulfites. The unspecified olive product(s) could not be identified; to provide for sulfite in such products, an average SDE level of 2 ppm was assigned to olives.

13. Some relishes, but not pickles (i.e. pickled cucumbers), are reported to contain added sulfite. Intake is based on industry estimate relative to that of cucumber pickles.

14. An average dilution factor of 5 was used in calculating SDE level as consumed. Salad dressings from dry mixes were estimated to constitute 5% of the intake of all salad dressings reported by Pao et al. (1982).

15. Intakes of malt and wine vinegars are based on industry estimates of sales.

16. Intake is based on 1982 sales of filled milk (USDA, 1984b). According to USDA, filled milk sales largely account for the difference between total sales of fluid milk products and the sum of sales of products listed, or 28 million lb. in 1982.

17. Residual levels in shrimp meat as processed and as consumed after cooking were taken from paper by Wood et al. (1976). Intake data for frozen fabricated products were not available; 10 ppm was selected as the average SDE level for all fish and seafood products.

18. Intake of sulfited fruit salad and the identity of unspecified fresh fruits were not determined. To account for these possible sources of sulfite and also include the contribution of table grapes, 5 ppm was selected as the average SDE level in all fresh fruits consumed. Levels in table grapes were reported by the California Grape and Tree Fruit League, Fresno, CA.

19. The dried fruit category is discussed in the text. Intake is for dried fruits that have been treated with sulfur dioxide, not all dried fruits.

20. Intake of imported apple and grape juice concentrates are based on 1983 import figures (USDC, 1984). SDE level in imported apple juice concentrate is based on information from industry. SDE level in imported grape juice concentrate is the level reported in one shipment; intake in Table 1 is for the concentrate, and the calculated SDE intake assumes no loss of sulfite in further processing. Intake of white and sparkling grape juices were estimated to be 10% of total grape juice intake reported by Pao et al. (1982). Intake of nonfrozen lemon and lime juices is based on 1983 consumption of canned and chilled lemon and lime juices (USDA, 1984a). Identity and intake of dietetic fruit juices containing added sulfite were not established.

21. Some cherries and sliced apples are reported to be treated with sulfite prior to freezing but information on quantities and residual SDE levels was not obtained. An average SDE level of 5 ppm was assigned to the reported intake of frozen fruits.

22. SDE level in maraschino cherries as consumed is based on report of Nardlee et al. (1985). Intake is based on production data submitted by National Cherry Growers and Industries Foundation, Inc., Corvallis, OR.

23. The fresh vegetable category is discussed in the text. SDE level in sulfite-treated mushrooms is that reported by ESS Laboratory Services (1983).

24. Information from industry indicates that sulfite is added only to sauerkraut packed in glass to prevent browning. The "added" level in Table 1 was taken from the NRC 1970 survey (NRC, 1972). No information was available on added levels in pickled cocktail onions and peppers. Residual levels were assumed to be the same as that reported for relishes (condiment category). Information on the intake of these three products was not available, and an average SDE level of 5 ppm was assigned to the intake reported for all canned vegetables to account for the SDE intake of the foods listed and the unspecified canned foods which may not have been identified.

25. Estimated intake of dried potatoes represents quantity of hydrated product as consumed.

26. Information from major processors of frozen potatoes indicates that less than 25% of commercially processed frozen products contain added sulfite. Intake represents estimate of product containing sulfite.

27. Sauerkraut juice is the only vegetable juice identified as containing added levels of sulfite. Identity of unspecified juices containing ≤800 ppm SDE (Table 1) was not established. An average SDE level of 5 ppm was selected for the intake of all vegetable juices.

28. Residual SDE levels in cane and beet sugar were reported by the Cane Sugar Refiners Association, Inc., Washington, DC; the level for dextrose was reported by the Corn Refiners Association, Inc., Washington, DC. Intake of sugar is based on per capita domestic disappearance of cane and beet sugar (USDA, 1983c) and annual consumption of dextrose reported by the Corn Refiners Association, Inc. Other data sources are identified in footnote 2.

29. Residual SDE levels and intake figures are based on data reported by the Corn Refiners Association, Inc., Washington, DC.

30. SDE level in domestic jams and jellies is based on analytical data reported by the International Jams and Jellies Association, Atlanta, GA, by S.L. Taylor, University of Wisconsin, and by the National Food Processors Association. The NFCS intake value includes jams, jellies, fruit butters, fruit topping, pastry filling, pectin, and jelling agents. SDE level in imported jams and jellies is based on the report of Howlett (1980) which states that maximum SDE level permitted in English jams is 200 ppm and the average is 13.6 ppm. Intake of imported jams and jellies is taken as 1% of the jam and jelly intake reported by NFCS. This is based on data on imports and domestic production provided by the U.S. Department of Commerce which shows that poundage imported is about 1% of domestic production.

31. Residual values in dry mixes were not reported by all manufacturers. Dilution ratios reported for dry soup mixes ranged from 1:6 to 1:18. The value, 25 ppm max., is a calculated value based on dilution of the dry mix and does not include any reduction resulting from cooking in preparation for serving.

32. Residual levels reported in product as processed (column 5) are for dry gelatin mixes. A dilution ratio of 1:5 was assumed in estimating levels in product as served.

33. Included in dried fruits category.

34. Included under crackers in baked goods category.

35. SDE levels are based on information reported by the Potato Chip/Snack Food Association, Laguna Beach, CA.

36. About one-half of estimated production of soy protein isolate is estimated to contain added sulfite. Soy isolate is used as an ingredient in other foods at levels generally less than 5% (SCOGS, 1976) and SDE levels in these foods contributed by soy isolate is 2-5 ppm. Food intake in Table 1 is for soy isolate per se and SDE intake is total for soy isolate not adjusted for processing losses in food formulation.

37. Intake is based on 1983 imports of shredded and desiccated coconut (USDC, 1984).

38. NFCS reports do not separate soups, sauces, and gravies (USDA, 1983a). It is estimated that purchased sauces and gravies are about 5% of total soups, sauces, and gravies.

39. SDE levels in soft drinks (calculated from residual SDE in their ingredients) were reported by the National Soft Drink Association (NSDA), Washington, DC. Other data sources are identified in footnote 2. Market share of each type beverage was also reported by the NSDA. Average level (3.3 ppm) in all soft drinks was calculated from these data. Other data sources are identified in footnote 2.

40. Two estimates are included for per capita daily wine intake: 5.4 g from the NFCS and 24.5 g based on the quantity of wine distributed in the U.S. in 1983 (USDA, 1984a). Corresponding values for SDE intake are 0.81 mg and 3.68 mg.

Based on the estimates in Table 1, the total per capita daily intake of sulfites from food, expressed as SDE, is about 6 mg. Beer provides an additional 0.4 mg/capita/day; wine, based on NFCS intake (USDA, 1983b), provides 0.8 mg but 3.7 mg based on the total quantity distributed. Thus, it seems reasonable to conclude that the mean daily intake of SDE from food, wine, and beer does not exceed 10 mg (0.17 mg/kg body weight). For those individuals who consume wine and/or beer regularly, there would be an additional 30 mg for each 200 ml of wine and 10 mg for each liter of beer consumed. For comparison, the Codex Alimentarius Commission estimated in 1975 that heavy consumers of foods and beverages containing high levels of sulfites (99th percentile consumption) might have a daily intake of 177 mg SDE. For further comparison, the following is an example of a meal that may provide a maximal amount of SDE:

Tossed salad	100 g x	950 ppm =	95 mg
Instant potatoes	160 g x	70 ppm =	11.2 mg
Shrimp	63 g x	30 ppm =	1.9 mg
Wine	200 g x	150 ppm =	30 mg
		Total	138.1 mg
With dried apricots added	33 g x	1200 ppm =	39.6 mg
		Total	177.7 mg

Thus, it also seems reasonable to conclude that the 99th percentile intake, including regular consumption of wine and beer, probably does not exceed 180 mg of SDE per day (3 mg/kg body weight).

The Panel has been unsuccessful in its attempts to obtain sufficient reliable data on the poundage of sulfites currently being used in food per annum and trends in usage of the several sulfiting agents since 1976. This issue is related to the extensive nonfood uses of food-grade sulfiting agents in industry. However, the International Food Additives Council is now assessing the production volume of food-grade sulfiting agents directed to food use in the United States (Cristol, 1984).

While intakes of sulfites from nonfood sources are not to be considered in the present evaluation, approximate levels of intake from such sources should be mentioned for comparative purposes and consideration of cumulative effects. Nonfood sources of sulfite intake include the atmosphere as well as ingested, inhaled, and injected medicinals.

Sulfur dioxide intake by inhalation can be estimated from standards of air quality (U.S. Congress, 1970) which require that average sulfur dioxide concentrations in communities do not exceed 0.14 ppm in any one 24-hour period and do not exceed 0.03 ppm per 24 hours over one year. For industrial environments, a threshold limit value of 2 ppm has been established for an 8-hour day (American Conference of Governmental Industrial Hygienists, Inc., 1980). The 0.14 ppm level would result in inhalation of 3.8 mg sulfur dioxide in 24 hours, the 0.03 ppm level 0.85 mg per 24 hours, and the 2 ppm level 24 mg per 8 hours.

Many injectable and oral drug preparations, including epinephrine, and other drugs frequently used in the treatment of asthmatic patients and those with respiratory problems, as well as local anesthetics, contain sulfite ranging from 0.25 to 1.0% as SDE (Pulmonary-Allergy Drugs Advisory Committee, 1983). Sulfite intake from such solutions, which are administered in small volumes, is quite small compared to that derived from intravenous infusion used for total parenteral nutrition (Metcalfe, 1984).

Infusion of 500 ml of a solution containing 0.1% sodium bisulfite, for example, would result in administration of 308 mg SDE.

IV. BIOLOGICAL STUDIES

The report of the Select Committee on GRAS Substances reviewed biological data relevant to the health effects of sulfiting agents available at that time (SCOGS, 1976). Except for information considered necessary to provide perspective and context for recent studies, literature cited in this section of the report represents studies completed since the 1976 evaluation of the GRAS status of sulfiting agents.

Metabolism of Sulfites

The chief pathway for metabolism of sulfite consists of its oxidation to sulfate. At high concentrations of sulfite (1 M sulfite, pH 7) an autooxidation reaction, initiated by superoxide or HSO_3^- radicals and enhanced by Mn^{2+} and Fe^{3+}, proceeds readily (McCord and Fridovich, 1969). However, at 20 mM sulfite this route of oxidation is relatively ineffective either in oxidizing sulfite to sulfate or in initiating other biologically significant reactions (Hayatsu, 1976; Johnson and Rajagopalan, 1980; McCord and Fridovich, 1969). In vivo sulfite oxidation is catalyzed by sulfite oxidase (also called sulfite dehydrogenase or sulfite: ferricytochrome c oxidoreductase, EC 1.8.2.1). The enzyme is located in the intermembranous space of the mitochondria, and it exists as a dimer (molecular weight 120,000 daltons in the human) with subunits containing a molybdenum atom (Mo^{6+}), a cytochrome b_5-type heme component and a pterin cofactor (Cohen and Fridovich, 1971; Johnson et al., 1980). Sulfite oxidase functions by transferring a pair of electrons from sulfite to molybdenum, heme, and cytochrome c sequentially. Sulfate and other anions inhibit sulfite oxidase activity in vitro; tungstate inhibits the enzyme in vivo and in vitro.

Sulfite oxidase is distributed widely in mammalian tissues with the highest concentrations in liver, heart, and kidney. Activity of the enzyme has been measured in the livers of many species including rats, dogs, cattle, monkeys, and man (Johnson and Rajagopalan, 1976; MacLeod et al., 1961). Sulfite oxidase activity measurements reported in the literature are difficult to compare because of the localization of the enzyme in the mitochondria and variations in the methods used. However, in general, sulfite oxidase activity in the human is slightly less than that of the rhesus monkey and substantially less than any of the other mammals studied except the rabbit. Cohen et al. (1973) estimated that the total activity of sulfite oxidase of the rat is capable of oxidizing 750 mmoles/kg body weight/day of sulfite, corresponding to 48 g SDE/kg body weight/day. Human liver has only 5 to 10% of the sulfite oxidase activity of rat liver (Johnson and Rajagopalan, 1976). In biopsy samples from three of four normal subjects, hepatic sulfite oxidase activity was 1.78 μmoles of cytochrome c reduced/min/g protein; in the fourth subject, enzyme activity was 3.62 μmoles of cytochrome c reduced/min/g protein (Johnson et al., 1980). Sulfite oxidase activity in cultured fibroblasts of normal human subjects was 1.07 nmoles cytochrome c reduced/min/mg protein (range, 0.75-1.76) (Shih et al., 1977) and 2.10 nmoles/min/mg protein (range, 0.75-3.03) (Johnson et al., 1980).

At least seven cases of congenital deficiency of sulfite oxidase in humans have been reported (Gunnison and Jacobsen, 1983).

No detectable activity of sulfite oxidase was found in liver or in skin fibroblasts of these patients (Johnson et al., 1980; Shih et al., 1977). Metabolically, the condition is characterized by greatly increased excretion of sulfite, thiosulfate and cysteine-S-sulfonate and by somewhat decreased excretion of sulfate. Clinically, the condition produces dislocated ocular lenses and severe neurological abnormalities resulting in mental and physical retardation.

In four sulfite oxidase-deficient patients, Shih et al. (1977) found that daily urinary sulfite excretion ranged from none to 4.28 mmoles/g creatinine; thiosulfate excretion was increased from 0.79 to 1.97 mmoles/g creatinine. Oral loading of one patient with 0.5 mmole each of methionine and cystine produced an increase in plasma sulfite from an initial level of 15 μM to 120 μM and 60 μM, respectively, after 4 hours. The loading tripled thiosulfate excretion.

Parents and siblings of sulfite oxidase-deficient patients frequently have lower levels of enzyme activity. Shih et al. (1977) and Johnson et al. (1980) reported that these relatives metabolized sulfite normally, confirming the occurrence of a large excess of sulfite oxidase activity in heterozygous as well as normal individuals.

A model system for study of sulfite oxidase deficiency can be produced in the rat by inclusion of 100-200 ppm of sodium tungstate in the drinking water (Johnson et al., 1974). In this early study, hepatic sulfite oxidase activity decreased from 40 to 0.05 Units/mg protein in 28 days. Tungsten competes with molybdenum for the metal binding site on the apoenzyme and sulfite oxidase activity can be diminished to any level by choosing an appropriate tungstate:molybdate ratio. Sulfite oxidase-deficient rats have markedly increased levels of urinary and tissue endogenous thiosulfate and S-sulfonates in proportion to the decrease in enzyme activity (Gunnison et al., 1981a,b,c). In sulfite oxidase-deficient rats administration of 0.5 mmole/kg of sulfite produced amounts of plasma S-sulfonates equivalent to those produced in normal rats by administration of 10 mmole/kg sulfite. High levels of plasma sulfite also occurred. Intubation of 10 to 20 times as much sulfite into the normal rat was required to produce a systemic sulfite level equivalent to that of the sulfite oxidase-deficient rat even though the former had 100 times the activity of enzyme (Gunnison et al., 1981a). Probably the limiting factor for sulfite oxidation is the rate of diffusion into the mitochondria (Oshino and Chance, 1975).

Since the oxidation of sulfite by nonenzymatic reactions is minimal in the presence of the normal distribution of sulfite oxidase, sulfate excretion provides an estimate of the metabolism of sulfite. It has been estimated by Gunnison (1981) that endogenous sulfite generation in humans is about 0.3 to 0.4 mmoles/kg/day (19.2 to 25.6 mg SDE/kg/day). In the U.S. the mean dietary intake based on information on consumer exposure is calculated to be between 0.17 and 3.0 mg SDE/kg/day for a 60 kg individual. The endogenous sulfite arises in the mitochondria and only needs to diffuse across the inner membrane to contact sulfite oxidase. Such sulfite arises from cystine and methionine in the diet in excess of bodily requirements. Sulfite has not been detected in the plasma or urine of normal humans, nor that of other mammals, unless large quantities of sulfite had been administered (Gibson and Strong, 1973).

Exogenous sulfite enters the body by inhalation of SO_2 and by ingestion via the blood stream. Some sulfite is oxidized in the lung and intestine before it enters the circulation.

Pfleiderer et al. (1968) reported that the empty intestine of rats oxidized about 50% of radiolabeled sulfite while filled intestines oxidized even more. This may be due to sulfite oxidase activity in the intestinal wall or to gut microflora. No reports of gastric absorption or metabolism have been noted.

Sulfite administered intravenously is cleared rapidly in the rhesus monkey. It has a biological half-life of 10 minutes for doses in the range of 0.3 to 0.6 mmole/kg (Gunnison and Jacobsen, 1983). Hepatic oxidation of infused sulfite in rats has been shown by Oshino and Chance (1975) to be diffusion limited. A constant proportion of the sulfite in the perfusate, up to 1 mM, is removed (mean, 33%, range 24-40%). Because all sulfite is not removed by the liver at first pass of the blood, all tissues will be exposed to a significant proportion of the administered dose. On the basis of data from rats and monkeys, Gunnison and Jacobsen (1983) speculated that the half-life of sulfite in man is 15 minutes. Thus, for example, approximately 0.25 mg of a 1 mg dose of potassium metabisulfite would remain in body fluids 30 minutes after ingestion. An immediate second challenge of 5 mg of metabisulfite would increase the total to 5.25 mg, declining to 1.31 mg in another 30 minutes. The immediate concentration after injection of 1 mg of potassium metabisulfite would be 2.57 μM for a 70 kg man assuming all the sulfite was confined to the plasma and 0.21 μM if the compound were evenly distributed in total body water.

Because of rapid clearance of sulfite by action of sulfite oxidase, chronically ingested sulfite does not accumulate in the tissues but is rapidy eliminated, primarily as sulfate. In all species tested, Gunnison et al. (1977) found that no more then 10% of the administered dose was excreted in the urine as sulfite. Brief exposure of tissues to sulfites does not appear sufficient to maintain sulfite adducts that are unstable. A sufficiently large physiologic equilibrium constant has not been demonstrated for the minor adducts to make them a factor in metabolism. Irreversible reactions, although quantitatively minor, could exert more significant biological effects.

Sulfite persisting in body fluids undergoes a number of reactions with tissue components. Thiosulfate is a product of three enzymatic reactions: 1) the reaction of sulfite with mercaptopyruvate (Sörbo, 1957); 2) metabolism of cysteine-S-sulfonate (Sörbo, 1958); and, 3) the reaction of sulfite and thiocystine (Szczepkowski and Wood, 1967). Sörbo and Öhman (1978) determined the daily excretion of thiosulfate in the urine of normal human subjects to be 31.7 mmole/day ± 12.8 (range 12.4-67.5). These values probably do not represent actual formation of thiosulfate in the body since thiosulfate is metabolized to sulfate and is excreted in the urine (Gunnison et al., 1981c; Skarzynski et al., 1959).

Several nonenzymatic reactions also occur between sulfite and tissue components. Few of the products form in vivo at the levels of sulfite arising from endogenous formation; however, under conditions of sulfite loading appreciable amounts of sulfite-derived compounds are produced.

Sulfite lyses disulfide bonds with formation of S-sulfonates and thiols (Cecil, 1963):

$$\mathrm{RSSR} + \mathrm{SO_3}^{=} \rightleftharpoons \mathrm{RSSO_3}^{-} + \mathrm{RS}^{-}$$

The reaction is reversible, but the equilibrium lies well to the right for small molecules such as cysteine-S-sulfonate and glutathione-S-sulfonate (Cecil, 1963); the former is found in the urine after sulfite loading (Gunnison and Palmes, 1974). Glutathione-S-sulfonate was also found in bovine lenses (Waley, 1959). Evidently only interchain disulfides of native proteins undergo sulfitolysis (Cecil and Wake, 1962). Protein S-sulfonates slowly release sulfite ions in the presence of sulfhydryl compounds (Swan, 1959).

Little information is available regarding other essential biological disulfide systems. No reports have been noted on modification of the dithiolane ring of lipoyl-containing transacylase cores (e.g., transacetylase of pyruvate dehydrogenase multienzyme complex, transsuccinylase of α-ketoglutaric dehydrogenase multienzyme complex or transacylase of branched chain α-keto acid dehydrogenase) by sulfiting agents. The same considerations may apply to other essential disulfide systems, e.g., thio-redoxin.

The formation of protein S-sulfonates is concentration-dependent both in vitro and in vivo. At 2 mmole/kg/day intake of sulfite, plasma of rabbits and rhesus monkeys contained measurable levels of S-sulfonates while plasma of rats did not. However, parenteral administration of 3.2 mmoles of sulfite/kg/day for 5 consecutive days produced significant increases in plasma S-sulfonate levels in the rat from 5-10 nmole/ml plasma to 19-30 nmoles. Plasma S-sulfonate fractions in the rat and rhesus monkey had half-lives of approximately 4 and 8 days, respectively (Gunnison and Palmes, 1978).

Gunnison and Palmes (1974) determined that the level of plasma S-sulfonates was related to exposure in human subjects inhaling sulfur dioxide at 0.3, 1.0, 3.0, 4.2, and 6.0 ppm for 120 hours. For each increment in exposure of 1 ppm, 1.1 ± 0.16 nmoles of additional S-sulfonate per ml of plasma were found.

Portions of lungs and aortas of rabbits exposed to constant arterial sulfite concentrations of 545-560 μM for 0.6 to 6 hours were analyzed for S-sulfonates (Gunnison and Farruggella, 1979). The kinetics of formation was first order with asymptotic concentrations of S-sulfonates of approximately 900 and 9000 nmole/g of dry weight of lung and aorta, respectively. Clearance of S-sulfonates from both tissues was apparently first order with a half-life of 2 to 3 days. No appreciable amounts of S-sulfonates were found in liver, kidney, testes, heart, brain, skeletal muscle, stomach, ovaries, duodenum, spleen, or eye.

Levels of S-sulfonates in tracheas of rabbits exposed to 3 ppm sulfur dioxide for 3 and 24 hours were constant at approximately 53 nmole/g dry weight (Gunnison et al., 1981c). Preliminary results of subsequent experiments in which rabbits were exposed to 10 ppm sulfur dioxide for 1, 3, 10, 24, 48, and 72 hours showed formation of 9 nmole/ml plasma in 3 hours and 30 nmole after 24 hours. No exogenous S-sulfonates were detected in aortas and scarcely any in the distal portions of posterior lung lobes. Thus, the sulfur dioxide absorbed was partially metabolized in passing through pulmonary tissues. S-Sulfonate concentrations of 107 nmole/g dry weight of trachea were reported in animals exposed for 3 hours with a gradual increase to 163 nmoles in animals exposed for 72 hours; however, increase was attributed to increased mucus production. During the exposure, S-sulfonates in plasma increased from 40 to 70 nmole/ml; sulfite was not detected in the plasma. It was concluded that with possible exception of heart and lungs, there was no transport of inhaled sulfur dioxide to organs some distance away from the site of absorption (Gunnison et al., 1981c).

Nasal mucus of four rats exposed to an initial concentration of 5 ppm of $^{35}SO_2$ for periods of 0.5, 1, 2, and 4 hours contained 90% of the inhaled ^{35}S after 30 minutes (Gause and

Barker, 1978). Later, the ratio of sulfur in mucus to serum leveled off at 3:1. After rats were exposed to 5 ppm or 20 ppm sulfur dioxide continuously for 7 days, electrophoresis of the glycoproteins from nasal mucus showed the appearance of three to five new bands from the acidic fraction, a finding interpreted to indicate an increase in crosslinking in the protein. The effect first appeared 2 hours after sulfur dioxide exposure. The polymerization of glycoprotein molecules could account for the decrease in flow rate of nasal mucus commonly seen with inhalation of sulfur dioxide. Habeeb (1971) found that sulfitolysis of seven disulfide bonds of bovine serum albumin, with concommitant reorganization of the topography of the molecule, caused an 80% reduction in ability to react with antiserum. However, Gunnison et al. (1981c) considered that localized tracheal concentrations of sulfur dioxide at or near 10 ppm would not be sufficient to produce protein crosslinking.

Metabolism of two relatively stable addition products of sulfite with food components (proteins or osuloses) has been investigated in rodents. Gibson and Strong (1974) administered a sulfonated protein (rat serum protein labeled with $^{35}SO_3{}^{2-}$) by stomach tube to 12 male albino rats. About 45 to 70% of the radioactivity was found in the carcass and urine. Highest concentrations of radioactivity were found in stomach, intestine, skin, and hair and 42 to 62% of radioactivity was excreted in the urine as inorganic sulfate after 24 to 48 hours. These investigators also fed a diet containing casein autoclaved with 0.6% sodium metabisulfite labeled with ^{35}S to rats for seven weeks. Growth of the animals fed the sulfited casein was comparable to that of controls although some diarrhea occured throughout the experiment. No evidence suggestive of toxic effects was observed. Metabolism of 3-deoxy-4-sulfohexulose, a sulfonate formed by the reaction between sulfite and deoxyosuloses, was studied in rats and mice utilizing ^{14}C- and $^{35}SO_3{}^{2-}$ labeled sulphonates (Walker et al., 1983). The compound appeared to be metabolically inert because $^{14}CO_2$ was not expired, the patterns of excretion of radioactivity following administration of both labels were similar, and chromatographic evidence indicated that compounds excreted in the urine were associated with unchanged 3-deoxy-4-sulfohexulose. At 72 hours after administration, 90.9 to 99.6% of the radioactivity was accounted for in urine, feces and cage washings; at that time no residual radioactivity could be measured in plasma or carcass. Tissue distribution studies suggested that most of the radioactivity was associated with the gastrointestinal tract; however, considerable activity was found in the pancreas soon after administration (Walker et al., 1983). Whether a transient increase in concentration of 3-deoxy-4-sulfohexulose has an effect on pancreatic function remains to be determined.

Metabolic Effects of Sulfites

The cleavage of thiamin by sulfite was reviewed by Dwivedi and Arnold (1973). The reaction involves a nucleophilic attack by sulfite on the quaternary nitrogen of the thiazole ring to yield pyrimidine sulfonic acid and 4-methylhydroxyethyl thiazole. At pH 5 and 25°C, the half-life of 10 μM thiamin in the presence of 1.0 mM sulfite is approximately 13 hours (Dwivedi and Arnold, 1973).

It has not been demonstrated that destruction of thiamin by sulfite in vivo is sufficiently rapid and specific to deplete reserves of thiamin or that the symptoms of bisulfite toxicity coincide with thiamin avitaminosis (Gunnison et al., 1981a). In three rats fed a diet containing 6% sodium metabisulfite and supplemented with 50 ppm thiamin for 21 days, the hepatic thiamin values were 8.8 ± 1.2 μg/g wet weight while the control values were 10.1 ± 0.7 μg/g. Although the test animals were severely anemic (hemoglobin, 9.5 ± 2.6 g/100 ml blood), Gunnison et al. (1981a) concluded that the systemic effect of sulfite was not due to destruction of thiamin. Activity of heme synthetase in brain and liver of male rats 3 months of age was also reduced after consumption of drinking water containing 900 ppm sodium sulfite for 7 weeks (Savelainen and Tenhunen, 1982).

Destruction of cyanocobalamin by high concentrations of sulfite in the diet or in the gut was considered a possible mechanism in the production of anemia (Gunnison et al., 1981a). The cobalamins form photolabile complexes with sulfites (Gunnison and Jacobsen, 1983). During photolysis, sulfite is oxidized aerobically to sulfate. Cyanocobalamin is reported to be an effective blocking agent for sulfite-induced asthma (Jacobsen et al., 1984). The relation of complex formation to the blocking of sulfite-induced asthma by cyanocobalamin has not been explained.

Menadione (vitamin K_3) adds sulfite to the 2,3-double bond of the naphthoquinone ring. The reaction is reversible and the sulfite adduct can be used by chicks as a source of vitamin K (Nir et al., 1978).

Sodium sulfite added to the diet of rats and fed for periods up to 1.5 years produced evidence of vitamin E deficiency as measured by effects on the enamel of the teeth (Irving et al., 1952). Such evidence appeared only at levels of 500 mg of sodium sulfite per kg body weight and higher.

Amino acids are oxidized in the presence of sulfites. Methionine is oxidized aerobically to its sulfoxide by free radicals in the presence of sulfite and Mn^{2+} (Inoue and Hayatsu, 1971; Yang, 1970); similarly, tryptophan is destroyed by sulfite and Mn^{2+}-induced free radicals (Yang, 1973).

Sulfite combines reversibly with aldehydes such as glucose and ketones such as fructose to form hydroxysulfonate derivatives (Petering and Shih, 1975). Compounds such as pyruvate and α-ketoglutarate form hydroxysulfonates which are somewhat more stable than the hydroxysulfonate of glucose, but would not be expected to persist under physiological conditions. A potential carbonyl addition is the sulfite adduct of pyridoxal phosphate, an important cofactor of many enzyme systems.

Sulfite adds to the 3,4-double bond of the pyridine ring of NAD. Riboflavin, as it occurs in coenzymes (e.g., FAD, FMN), forms chemical adducts with sulfites. The N^5 atom of flavin is thereby substituted with a sulfonate group at the active site that accepts hydrogen. The free adducts dissociate readily at low sulfite concentrations, but may show a somewhat enhanced stability in protein combinations. This is the probable mechanism of inhibition of dehydrogenases by sulfite (Müller and Massey 1971). A number of flavoprotein oxidase enzymes (e.g., D- and L- amino oxidases, oxynitrilase, lactate oxidase, and glycolate oxidase) form stable sulfite adducts with dissociation constants from 10^{-3} to 10^{-7} M. The flavoprotein dehydrogenases did not form adducts at 20 mM sulfite (Müller and Massey, 1971).

The catalytic action of several oxidative enzymes such as xanthine oxidase, liver aldehyde oxidase, cytochrome oxidase, lipoxidase, and peroxidase can initiate aerobic oxidation of sulfite by intermediate formation of superoxide and other free radicals (Fridovich and Handler, 1961). Cytochrome oxidase was inhibited 37% by 0.5 mM sulfite at pH 7 (Cooperstein, 1963). α-Glucan phosphorylase was inhibited by 10 to 30 mM sulfite concentrations (Kamogawa and Fukui, 1973). Sulfite was a competitive inhibitor for phosphate in glycogen synthesis and in glycogen degradation. Alkaline phosphatase was inhibited in vivo.

Activity of 2,3-diphosphoglyceric acid phosphatase was enhanced 15-fold by 2.5 mM sulfite (Harkness and Roth, 1969). Sulfite was found to be a potent inhibitor of many sulfatases, e.g., sulfatase A, K_i, 0.2 μM (Roy, 1976).

Sulfite adds reversibly to the 5,6-double bonds of cytosine and uracil and their nucleosides and nucleotides (Gunnison, 1981; Shapiro, 1983). The additions are pH- and concentration-dependent and the adduct has a half-life of several hours. At 100 mM sulfite, only 12% of the uridine reacted in 0.5 hours. Uridine is regenerated from its sulfite adduct by removal of sulfite. The sulfonate adducts of cytosine and its derivatives are less stable and a high concentration of sulfite is necessary to maintain them at physiological pH.

The deamination of cytosine to uracil nucleotides in single stranded DNA occurs in bisulfite solutions of 1 M or higher at pH 5 to 6 (Hayatsu, 1976; Shapiro, 1983). Purine bases do not react under these conditions. This reaction has been used in a number of studies with microbial systems to demonstrate the mutagenic property of bisulfite. The concentrations of bisulfite used in chemical studies and microbial mutagenicity tests were about two or three orders of magnitude higher than is observed in biological systems.

The cytosine sulfonate adduct can also be transaminated with primary and secondary amines, including lysine, to produce N^4-substituted cytosines and polycytidines (Shapiro and Gazit, 1977). Crosslinking was obtained also with heat-denatured calf thymus DNA to the extent of 0.5% of the strands after 6 days in 0.15 M sodium bisulfite. Double-stranded DNA did not crosslink. However, Lukášová and Paleček (1976) found that treatment of native calf thymus DNA with 2.61 M bisulfite at pH 6.5 for 24 hours caused modification of the polarographic behavior which was explained on the basis of modification of less than 1% of the cytosine, presumably by conversion to uracil. The investigators suggested that cytosine residues on "open" loops in the native DNA were the reactive sites. Such crosslinking has not been demonstrated in vivo in mammalian organisms. In cultures of mouse liver cells, Hela cells, and human embryonic lung cells, lymphocytes and oocytes, significant inhibition of DNA synthesis has been observed at bisulfite concentrations from 0.1 to 10 mM (Shapiro, 1983). From alkaline sucrose density gradient measurements, Hayatsu and Miller (1972) concluded intranucleotide bonds of DNA were cleaved by 1 to 10 mM sodium bisulfite. Since the cleavage at pH 7 was enhanced by Mn^{2+} and inhibited by hydroquinone, it was considered to result from free radical formation.

Kaplan et al. (1975) found that low concentrations of bisulfite (0.5 mM) induced oxidation of corn oil emulsified in 1.5% polysorbate solution. The effect was concentration-dependent to 10 mM. The initial oxidation products presumably were peroxides. Because it was inhibited by Mn^{2+} and antioxidants, sulfite autooxidation was not considered a significant factor in the oxidation process. Inouye et al. (1978) reported similar results in liver homogenates.

Incubation of unsaturated membrane lipids with a large excess of bisulfite produced significant changes in the behavior of such lipids on silica gel, suggesting the addition of bisulfite to fatty acid double bonds (Akogyeram and Southerland, 1980). Such addition, if occurring in vivo, would change the topography of the membrane and could account for the toxic and irritating effect of sulfur dioxide on tissues.

In brains of guinea pigs exposed to 10 ppm sulfur dioxide for 1 hour daily for 21 days, total lipids and free fatty acids were decreased in all regions, but changes in other fractions varied among regions of the brain (Haider et al., 1981). The rates of peroxidation and the activity of lipase were increased significantly in all regions of the brain.

In summary, from the information on the metabolism of sulfiting agents in the current literature, the ad hoc Panel finds no reason to presume that individuals with the usual levels of sulfite oxidase activity and adequate nutritional status should develop adverse health effects from consumption of sulfite in foods at the levels currently used. However, there is sufficient information in the current literature to conclude that some individuals, or a select subpopulation with a congenital deficiency of sulfite oxidase activity, would metabolize sulfite more slowly and may be subject to adverse effects from sulfite at the current level of intake.

Acute Oral Toxicity

No animal feeding studies of acute oral toxicity of sulfiting agents published after 1976 were located for consideration by the ad hoc Review Panel. Acute exposure seems to be a factor in sensitivity reactions associated with ingestion of foods or beverages containing sulfiting agents (see section V), but this reaction appears to be separate and distinct from other manifestations of acute oral toxicity.

Short- and Long-Term Toxicity Studies

Early investigation of the chronic toxicity of sulfite was complicated by development of thiamin deficiency, resulting from the destruction of dietary thiamin by sulfite (Fitzhugh et al., 1946). In studies such as those of Cluzan et al. (1965) and Lockett and Natloff (1960), long-term administration of sulfites in drinking water (dosage ranges of 29-40 to 190 mg SO_2/kg body weight/day) was not associated with effects on feed consumption, growth rate, reproduction, hematology, organ weight and histology, or mortality.

In the 1976 evaluation of the health aspects of sulfiting agents as food ingredients, the Select Committee considered the thorough investigation on ingestion of sulfites in thiamin-supplemented diets (Til et al., 1972a,b) as substantive evidence for levels of sulfiting agents required to produce chronic toxic effects in rats and pigs. In pigs fed diets containing sodium metabisulfite for 48 weeks, the no observed adverse effect level (NOAEL) was 3500 ppm, corresponding to dosage ranges of 42 to 179 mg SDE/kg body weight/day. In rats, the NOAEL for sodium metabisulfite was 2150 ppm, equivalent to an intake of 72 mg SO_2/kg body weight/day. Based upon the data reported by Til et al. (1972a), the Joint FAO/WHO Expert Committee on Food Additives (1974) established an acceptable daily intake (ADI) of 0.7 mg SDE/kg body weight.

Few reports were found of short- or long-term studies of sulfiting agents published after 1976. Gastric lesions had been reported in several earlier chronic feeding studies (Feron and Wensvoort, 1972; Til et al., 1972a,b). In one study the types of gastric lesions induced in Cpb:Wu (Wistar Random) rats by feeding of sodium metabisulfite were examined by enzyme histochemistry and light and electron microscopy (Beems et al., 1982). Animals were fed thiamin-supplemented diets containing 0, 4, and 6% sodium metabisulfite for 8 or 12 weeks in a subchronic study or

0 and 6% sodium metabisulfite for 4, 7, 14, 21, or 28 days in a time-sequence study. Fundic mucosa of the rats fed sodium metabisulfite contained scattered hyperplastic glands lined with enlarged hyperactive gastric chief cells containing large numbers of pepsinogen granules, but no fat, glycogen, or mucus. Findings from the time-sequence study suggested that preexisting chief cells were transformed to hyperactive chief cells having proliferative capabilities. While it is considered unusual that chief cells of this type should be so involved rather than mucus cells, the pathogenesis of the lesions remains to be resolved (Beems et al., 1982).

Subchronic toxicity of sulfite was examined in female rats with low levels of sulfite oxidase activity induced by feeding of low molybdenum diets containing tungstate for 9 weeks (Gunnison et al., 1981a). Beginning on day 21, drinking water for two groups of animals also included 25 or 50 mM SO_3^{2-}. This treatment resulted in levels of hepatic sulfite oxidase activity 1% of that of untreated rats and 10% of that of normal humans. The authors reported that the general health of the rats appeared normal and differences in weight gains and organ weights of pregnant and nonpregnant animals were not correlated with exogenous sulfite levels. Nonpregnant animals given sulfite did not develop anemia and hematologic measurements in pregnant animals showed changes normally associated with pregnancy. Erythrocyte glutathione concentrations and prothrombin times were not affected and hepatic thiamin concentrations were not significantly reduced by administration of sulfite to rats with low levels of sulfite oxidase activity. S-Sulfonate concentrations in aorta, pinna, and plasma were elevated in animals with low levels of sulfite oxidase activity. Administration of sulfite produced additional increments in S-sulfonate levels in aorta. Trends appeared similar, but data were incomplete for pinna and plasma concentrations of S-sulfonates.

The Select Committee (SCOGS, 1976) concluded that "the level of sulfite that produces no observed toxic effects varies from about 30 to 100 or more mg of SO_2 per kg body weight per day, depending on the species and experimental conditions." Upon review of the information available to the Select Committee and in the absence of additional data conflicting with the reports considered by the group, the ad hoc Review Panel concurs with the conclusion of the Select Committee regarding the no observed adverse effects level of sulfiting agents for chronic toxic effects. Moreover, it is evident from examination of experimental protocols that the no observed adverse chronic effect level is probably nearer the upper than the lower portion of the range.

Teratogenicity

Reproductive performance was studied in female Wister-derived rats with induced sulfite oxidase deficiency and exposed to 25 or 50 mM sulfite (160 or 280 mg/kg/day) as sodium metabisulfite in drinking water from 3 weeks prior to mating until day 20 of gestation (Dulak et al., 1984). No treatment related trends were reported in reproductive performance or malformations after exposure to sulfite of animals having deficient or normal levels of sulfite oxidase activity.

Inhalation of sulfur dioxide in filtered room air for 7 hours/day by CF-1 mice (25 ppm on days 6 through 15 of gestation) and New Zealand rabbits (70 ppm on days 6 through 18 of gestation) resulted in no evidence of maternal toxicity except for decreased food consumption by both species during the first few days of exposure (Murray et al., 1979). An increase in minor skeletal variants in both species was associated with maternal exposure to sulfur dioxide, but no teratogenic effects were observed in either species (Murray et al., 1979).

It is the opinion of the ad hoc Review Panel that these data, in addition to the studies considered by the Select Committee, do not provide evidence of teratogenic effects of sulfiting agents.

Mutagenicity and Carcinogenicity

It was reported that bisulfite (10 mM; pH not specified) induced mutations in *Staphlococcus aureus* and that bisulfite (5 mM) induced mutations at pH 3.6 but not 5.5 in *Saccharomyces cerevisiae* (Shapiro, 1983). Bisulfite (0.1 M) did not cause mutations in *Escherichia coli* (Mallon and Rossman, 1981). In a *Bacillus subtilis* test system, concentrations of sulfur dioxide similar to those found in wines (150 ppm, pH 3.0 to 6.5) did not elicit any mutagenic activity (Khoudokormoff and Gist-Brocades, 1978). Also in a *B. subtilis* system higher concentrations of a sodium sulfite-bisulfite mixture (0.1 M to 0.5 M; pH 7) showed mutagenic effects whereas a lower concentration of this mixture (0.05 M; pH 7) caused no mutagenic activity. Cells treated with adducts of sodium bisulfite and cytidine monophosphate or uridine monophosphate demonstrated mutagenic effects at concentrations of 0.25 M and 0.5 M (Chang et al., 1977).

Transformation of Syrian hamster embryo cells treated with 1, 5, or 10 mM bisulfite for 24 hours at neutral pH was increased in a dose-dependent fashion (DiPaolo et al., 1981); however, the authors suggested this transformation might not occur by a mutagenic mechanism because bisulfite in combination with UV irradiation did not synergistically increase transformation. Further work in this system indicated that bisulfite caused no detectable DNA damage and may have decreased the rate of DNA replication per cell by blocking operation of part of the functioning replicons (Doniger et al., 1982). In Chinese hamster ovary cells, dose- and time-dependent inductions of sister chromatid exchange were shown following exposure to 0.03 mM to 7.3 mM concentrations of bisulfite for 2 or 24 hours (MacRae and Stich, 1979).

In contrast, Chinese hamster cells (V79) exposed for 15 minutes to 10 and 20 mM bisulfite, exhibited no mutations to ouabain resistance (Mallon and Rossman, 1981). Likewise, exposure for 15 minutes to 10 mM bisulfite produced no mutations to 6-thioguanine resistance. Long-term exposure of Chinese hamster V79 cells (exposed continually and recultured for 8 weeks in a complete growth medium containing 5 mM bisulfite) also failed to induce ouabain resistant mutations (Mallon and Rossman, 1981). Cultures of lymphocytes from human peripheral blood exhibited chromosomal abnormalities (clumping) and decreases in DNA synthesis, cell growth and mitotic indices after a single exposure to 100 ml of 5.7 ppm sulfur dioxide in air on days 0 or 1 of incubation but not on days 2 or 3 (Schneider and Calkins, 1970).

While chromosomal aberrations have been observed in response to sulfites in in vitro systems, mutagenic effects have not been reported in intact animals exposed to sulfur dioxide or sulfites. Dominant-lethal mutations were not increased in 10- to 12-week-old (C3H x 101) F_1 female mice given one intraperitoneal injection of 550 mg/kg sodium bisulfite and mated with untreated (101 x C3H) F_1 males within 4.5 days of treatment (Generoso et al., 1978). In the same study neither heritable translocations nor dominant-lethal mutations were detected when (101 x C3H) F_1

male mice were mated with (C3H x C57BL) F_1 females after intraperitoneal injections of 400 mg/kg sodium bisulfite 20 times during a 26-day period or with 300 mg/kg 38 times during a 54-day period. Chromosomal aberrations were not found in oocytes of female Camm mice given one intravenous injection of 1.0, 2.5, or 5.0 mg sodium sulfite although structural damage was reported during meiosis when cultures of Camm mouse oocytes were treated with sodium sulfite (Jagiello et al., 1975). The influence of low levels of hepatic sulfite oxidase activity on induction of cytogenetic effects was recently studied in Chinese hamsters and NMRI mice made sulfite oxidase-deficient by feeding of a low molybdenum diet plus administration of sodium tungstate in drinking water (Renner and Wever, 1983). No cytogenetic effects (measured by sister chromatid exchange, chromosomal aberration, and micronucleus tests) were induced in bone marrow cells of either species in response to subcutaneous or intraperitioneal injection or oral administration of sodium metabisulfite solution, although the authors noted that control animals tolerated higher doses of sulfite than those made sulfite oxidase-deficient (Renner and Wever, 1983).

Carcinogenic potentials of potassium metabisulfite and sulfur dioxide have also been examined. Male and female ICR/JCL mice administered 1 and 2% potassium metabisulfite in drinking water for 24 months had no increased incidence of tumors over control animals, suggesting that potassium metabisulfite is not carcinogenic in mice (Tanaka et al., 1979). Exposure to sulfur dioxide by inhalation was associated with an approximate doubling of lung tumors, but no increases in hepatomas or lymphoid tumors (Peacock and Spence, 1967). The increased frequency of lung tumors was not statistically significant. Inhalation of sulfur dioxide in combination with benz(a)pyrene resulted in an increased incidence of tumors in rats over exposure to either substance alone; rats exposed only to sulfur dioxide had no tumors at the end of the experimental period (Laskin et al., 1976).

An unexpected finding of mammary adenocarcinomas after 9 weeks of treatment was reported by Gunnison et al. (1981a) in 4 of 149 female rats (two pregnant, two nonpregnant) with low activity of sulfite oxidase induced by feeding of a low molybdenum diet containing tungstate; no tumors were found in rats with normal levels of sulfite oxidase activity. The difference was not statistically significant.

Effects on peripheral blood cells of workers exposed to sulfur dioxide were examined in two Swedish studies. Nordenson et al. (1980) observed an increase in chromosomal aberrations (mostly gaps and chromatid-type breaks) in 7 of 19 workers who were exposed to other inhalants as well in a sulfite pulp factory. However, peripheral blood lymphocytes of eight workers whose individual mean daily exposure to sulfur dioxide in an aluminum foundry was estimated to be 1.0 ± 0.85 ppm had no greater incidence of chromosomal aberrations or sister chromatid exchange than eight age-control subjects (Sorsa et al., 1982). Average daily sulfur dioxide exposures in the aluminum foundry were estimated to range from 0.2 to 3.0 ppm and mean employment time for the exposed workers was 19.5 years (Sorsa et al., 1982).

Possible synergistic effects of sulfur dioxide and sulfites with other compounds have been examined in an effort to determine whether sulfiting agents might act as comutagens or cocarcinogens. Mutation frequency was approximately doubled in UV-irradiated Chinese hamster V79 cells exposed to 10 mM bisulfite either during or after irradiation exposure and tryptophan revertants were increased by more than eight-fold in UV-treated *E. coli* cells exposed to 75 mM bisulfite (Mallon and Rossman, 1981). Treatment of bacteriophage-λ with bisulfite-amine mixtures (1 M bisulfite plus 1 M semicarbazide, hydrazine, methoxyamine, or hydroxylamine) produced increases in clear mutation (plaque-forming activity) over treatment with bisulfite alone (Hayatsu and Kitajo, 1977). Combination of bisulfite (150 ppm) with nitrite (100, 200, or 400 ppm) was reported to produce a weak mutagenic effect after 2 weeks in B. subtilis (Khoudokormoff and Gist-Brocades, 1978). Mutagenic effects of coffee on Salmonella typhimurium strains TA 100 and TA 98 without S9 mix were completely inhibited by addition of 300 ppm sulfiting agents (sulfite, bisulfite, or metabisulfite) and phage-inducing activity of coffee (prophage-λ induction test) was suppressed by 300 ppm sulfite ion (Suwa et al., 1982). Sodium sulfite was also a weak inhibitor of mutagenic effects induced by benz(a)pyrene in S. typhimurium strain TA 98 (Calle and Sullivan, 1982). Bisulfite concentrations relevant to use in foods (0.5, 2.5, and 5.0 μg/ml) as well as a higher concentration of 100 mg/ml inhibited transformation of C_3H 10T 1/2 cells by x-rays and benz(a)pyrene; pretreatment of hamster embryo cells with 100 ppm bisulfite inhibited transformation by x-rays (Borek, 1984a,b).

Upon consideration of these studies as well as the data available to the Select Committee in 1976, the ad hoc Review Panel concludes that sulfites are mutagenic to several microorganisms and may produce chromosome damage to mammalian cells in vitro. However, sulfites also inhibit mutagenic effects of some known mutagens and carcinogens. Sulfites are not carcinogenic or mutagenic in vivo to rats and mice.

V. SULFITE SENSITIVITY REACTIONS

Ingestion of foods or beverages containing sulfites, inhalation of sulfur dioxide, and parenteral administration of medications containing sulfites have been reported to cause adverse reactions in some asthmatic individuals. The most often reported sign following exposure to sulfites or sulfur dioxide has been bronchial hyperreactivity (bronchoconstriction and bronchospasm) although reactions resembling anaphylaxis (shock, gastrointestinal disturbances, and urticaria/angioedema) as well as flushing, hypotension, and tingling sensations have also been reported (National Institute of Allergy and Infectious Diseases, 1984).

In 1973, Kochen reported that a mildly asthmatic child experienced acute, transient asthmatic reactions following ingestion of freshly opened sulfite-containing foods. However, challenge testing was not carried out to determine if sulfites were the causative agents in this case. Subsequently, Prenner and Stevens (1976) presented a case report of anaphylaxis occurring in a 50-year-old nonasthmatic male who consumed a restaurant meal that included a green salad sprayed with a product containing bisulfite. Oral challenge with sodium bisulfite (10 mg total dose) resulted in erythema, itching, nausea, warmness, coughing, and bronchoconstriction for about 1 hour. Lung function measurements were not made nor was a placebo administered as a part of the challenge.

Freedman (1977) interviewed 272 asthmatic patients and reported that 30 experienced exacerbations of asthma following ingestion of orange drinks made with sodium bisulfite and sold in England. Fourteen of the 30 patients allowed challenge tests with a single dose of a sodium metabisulfite solution containing 25 mg SDE in a weakly acidic solution (sulfur dioxide concentration 100 ppm). Within 2 to 25 minutes, eight of the 14 patients challenged gave a positive response, defined as a drop of at least 12% in FEV_1 (forced expiratory volume at 1 second). However, because of the experimental conditions, no placebo was given.

One case of bronchospasm in an asthmatic patient following ingestion of canned crabmeat salad with a vinegar dressing was reported by Baker et al. (1981). Oral challenge of this patient with sodium metabisulfite (dose not reported) resulted in severe bronchospasm within 30 minutes; no reaction was observed after ingestion of the canned crabmeat alone when given as a clinical challenge. In a second patient whose asthma was provoked by wine, a single-blind oral challenge with a capsule containing 500 mg sodium metabisulfite caused a drop in peak flow rate from about 440 l/min before challenge to 100 l/min 30 minutes after challenge. Challenge with a placebo capsule (lactose) did not produce a significant pulmonary change in the second patient.

Clinical presention of vague, general symptoms were reported following oral challenge with metabisulfite in two patients who developed dizziness, weakness, nausea, chest tightness, tachycardia, and dyspnea associated with restaurant meals (Schwartz, 1983). Pulmonary function studies during an oral metabisulfite challenge showed no changes.

Clinical investigations on four patients with histories of severe bronchoconstriction and anaphylaxis associated with consumption of restaurant meals were reported by Stevenson and Simon (1981). Single-blind oral challenges were administered to these patients in the fasting state and while they were taking their usual medications. Placebo capsules containing lactose were administered orally every 30 minutes on the first morning of testing and capsules containing 1, 5, 10, 25, or 50 mg potassium bisulfite were given sequentially every 30 minutes on the second day. FEV_1 values were measured at 30-minute intervals on both days. All four patients reacted to bisulfite challenges, developing asthmatic symptoms 10 to 15 minutes after ingestion of a provocative dose (10, 25, or 50 mg). FEV_1 decreased maximally (34 to 49%) at 30 to 90 minutes after provocation. Systemic symptoms including flushing, tingling, and/or faintness occurred in all subjects (Stevenson and Simon, 1981). Subsequent oral challenge of six sulfite-sensitive asthmatic (SSA) patients with sulfite solutions produced reactions equal to the reactions observed after oral capsule challenge, but at levels approximately one-half of the provocative capsule dose (Goldfarb and Simon, 1984). Fifteen additional asthmatic patients with a history of increased asthmatic reactions associated with consumption of food and beverages were serially challenged with capsules containing 5, 10, 25, and 50 mg sodium metabisulfite (Koepke and Selner, 1982). Only one of these patients had a significant reaction to the challenge; administration of 5 mg sodium metabisulfite produced a fall of 28% in FEV_1 in 2 minutes.

Capsules containing 1.4, 14, 144, or 288 mg metabisulfite as the potassium salt were sequentially administered to 134 patients selected from a clinic population of 1073 patients having asthma and related allergic symptoms (Buckley et al., 1985). Decreases in FEV_1 values at least 15% were reported in 50 of the 134 patients challenged. Based upon these challenges, Buckley et al. (1985) estimated that 4.6% of asthmatic patients respond to sulfite challenge.

Twelve patients with idiopathic anaphylaxis, nine of whom had a history of reactions associated with restaurant meals, and ten control subjects were challenged with increasing oral doses (1, 5, 10, 25, 50, 100, and 200 mg) of sodium metabisulfite dissolved in lemonade (Sonin and Patterson, 1985). A similar extent of mild nonspecific irritant and subjective symptoms were reported in both groups of patients. No anaphylactic reactions occurred in the 12 patients with idiopathic anaphylaxis. No bronchospasm occurred, although pulmonary function was abnormal in three of these patients (Sonin and Patterson, 1985). Capsule challenge with 1, 5, 10, 25, 50, 100, and 200 mg sodium bisulfite of 32 patients (14 with recurrent idiopathic anaphylaxis, 8 with systemic mastocytosis, and 10 with instances of allergic reactions with meals) resulted in anaphylactic episodes in two of the patients with idiopathic anaphylaxis. However, these two patients also reacted in the same way to placebo challenge (Metcalfe, 1984).

In a presentation made at the Open Meeting of the ad hoc Review Panel, Taylor (1984b) reported that oral capsule challenge of 100 non-steroid-dependent asthmatic patients with potassium metabisulfite resulted in no cases of sulfite sensitivity that could be confirmed by double-blind challenge. Single-blind challenges of 69 steroid-dependent asthmatic patients resulted in a decrease in FEV_1 of at least 20% in 14 cases. Double-blind challenges of five of these steroid-dependent patients resulted in significant decreases in FEV_1 in two cases, leading Taylor and coworkers to suggest that perhaps 5 to 10% of steroid-dependent asthmatic patients (who number about 2 million individuals) may be sulfite sensitive. Extrapolation of this estimate would suggest that 1 to 2% of all asthmatics might be sensitive to sulfites (Taylor, 1984b).

FEV_1 values did not decline and no manifestations of sulfite sensitivity were reported following administration of bisulfite to five steroid-dependent asthmatic patients without histories of reactions associated with restaurant meals (Stevenson and Simon, 1981). Of 61 additional asthmatic patients not having a history suggestive of sulfite sensitivity, five individuals (8.2%) had a fall in FEV_1 of at least 25% following single-blind oral challenge of metabisulfite (Simon et al., 1982). In this study, patients were challenged with capsules containing increasing concentrations (10, 25, 50, 100 mg) of bisulfite at 30-minute intervals. If no reaction occurred to these capsules, patients were further challenged by ingestion of acidic solutions containing 1 or 10 mg of metabisulfite. Those reacting positively to metabisulfite challenge were subsequently given a placebo challenge. Although the data were not presented, Simon et al. (1982) reported that the reactions of these five patients were milder and required larger provocative challenges than the reactions in six SSA patients having histories of reactions associated with restaurant meals. Administration of atropine, cromolyn, doxepin, or vitamin B_{12} prior to sulfite challenge of six SSA patients partially or fully blocked asthmatic reactions (Simon et al., 1984).

Mean activity of sulfite oxidase was 0.15 nmole/min/mg protein in skin fibroblasts of four SSA patients (Jacobsen et al., 1984). This level of enzyme activity is below that reported in skin fibroblasts of normal persons (Johnson et al., 1980; Shih et al., 1977); however, it remains to be shown whether the levels of sulfite oxidase activity in skin fibroblasts is representative of tissues containing the highest concentrations of the enzyme (liver, heart, and kidney).

Pulmonary function was evaluated in 25 asthmatic patients (history of food or beverage related reactions not specified) and 25 nonasthmatic individuals consuming 112 ml of commercial white wine containing 140 mg/l of sulfur dioxide (15.7 mg sulfur dioxide total dose) (Seyal et al., 1984). A decrease in FEV_1 greater than 12% was recorded in one nonasthmatic subject and in five asthmatic patients during or following ingestion of the wine. Two of the asthmatic responders were challenged with two model solutions:

the first was reported to contain all ingredients found in wine except metabisulfite; the second was a metabisulfite solution. FEV_1 was decreased in both of these subjects following ingestion of the metabisulfite solution and in one subject ingesting the model wine solution without metabisulfite.

Lettuce treated with sodium bisulfite was employed as an oral challenge to evaluate pulmonary function of five stable, previously documented SSA patients after consumption of food containing sulfiting agents (Howland and Simon, 1985; Simon, 1984). Three ounce portions of lettuce were dipped according to package instructions in a commercial vegetable freshener containing sodium bisulfite or in a similar commercial product that did not contain a sulfite salt. Approximately 10 ml of solution (80 to 90 mg bisulfite) adhered to the lettuce after draining. All five patients showed a significant decrease in FEV_1 (mean decrease 44%, range 31 to 64%) after consuming the sulfite-treated lettuce. None reacted to the control lettuce. Four of the patients were described by Simon (1984) as having moderate asthmatic reactions while the fifth had a life-threatening reaction requiring extensive emergency treatment.

Bronchoconstriction and bronchospasm reactions have been reported more frequently to inhalation of sulfur dioxide than to ingestion of sulfiting agents. Both asthmatic and nonasthmatic individuals react to inhalation of sulfur dioxide (Koenig et al., 1982; Nadel et al., 1965; Schachter et al., 1984; Sheppard et al., 1980). Mildly asthmatic individuals inhaling sulfur dioxide through a mouthpiece developed bronchoconstriction at a lower concentration of sulfur dioxide (1 to 3 ppm) than healthy nonasthmatic control subjects, and their bronchoconstriction was more severe (Sheppard et al., 1980). However, exposure to a maximum concentration of 1 ppm sulfur dioxide in an environmental chamber (oronasal breathing) did not result in respiratory effects in either asthmatic or nonasthmatic individuals (Schachter et al., 1984). Inhalation of bronchodilators containing sulfites has also been associated with bronchospasm and anaphylactic reations (Koepke et al., 1984; Twarog and Leung, 1982). Nadel et al. (1965) demonstrated in seven healthy subjects that injection of atropine prevented bronchoconstriction induced by breathing air containing 4 to 6 ppm sulfur dioxide; additional studies in cats indicated that parasympathetic motor pathways must be intact for sulfur dioxide to elicit bronchoconstriction.

Inhalation of sulfur dioxide induced falls in FEV_1 greater than 25% at concentrations 1/10 to 1/100 of the concentrations of ingested sulfites in six known SSA patients (Goldfarb and Simon, 1984). In a letter, Werth (1982) reported that one patient with a history of asthmatic reactions related to ingestion of certain foods and beverages began wheezing after breathing from a bag of dried apricots. However, subsequent oral challenges of this patient with capsules containing potassium metabisulfite up to a dose of 50 mg produced no change in peak flow rate.

Opinions differ on the influence of eructation of sulfur dioxide on the reaction of patients to oral challenge with capsules containing sulfite salts. Concentrations of 4 to 50 ppm of sulfur dioxide were reported in the stomachs of five patients following ingestion of capsules containing 25 or 50 mg metabisulfite under unspecified conditions (Allen and Delohery, 1985). However, no noticable eructation was reported by patients after oral challenge with capsules containing sulfites (Metcalfe, 1984).

The contribution of inhaled sulfur dioxide to the food- and beverage-associated episodes of bronchoconstriction and bronchospasm in asthmatic patients is not certain. Freedman

(1977) cited an estimate that the 3 cm air space above a water solution containing 70 ppm sulfur dioxide contained 1 ppm sulfur dioxide at room temperature, a concentration causing bronchoconstriction in some mildly asthmatic patients (Sheppard et al., 1980). Administration of mouthwash containing incremental doses of metabisulfite up to 100 mg in 30 ml of citric acid solution resulted in a fall of at least 20% in FEV_1 in nine of 15 asthmatic subjects (Allen and Delohery, 1985). Rechallenge of these nine patients with the same concentrations of metabisulfite while the subjects were holding their breath did not produce the 20% decrease in FEV_1 considered a positive response. Changes in pulmonary function observed in the studies of Allen and Delohery (1985) and Sonin and Patterson (1985) could have been caused by irritant reactions to inhalation of sulfur dioxide from the acidic solutions administered. Administration of citric acid or lemonade solutions without sulfites were not reported as placebo controls for these studies. Acid fumes are also airway irritants (Rom and Barkman, 1983) and the pulmonary effects reported could result from exposure to acid as well as to sulfur dioxide.

Intravenous infusion of a solution of glucose, theophylline, and dexamethasone which also contained bisulfite severely worsened an asthmatic episode in one patient who had previously shown a large decrease in peak flow rate following an oral capsule challenge of 500 mg sodium metabisulfite (Baker et al., 1981). Intravenous injection of metaclopromide which contained metabisulfite also resulted in bronchospasm in this patient. Injection of a dose of lidocaine hydrochloride containing 0.9 mg sodium metabisulfite was followed by development of plantar pruritis in an individual who had experienced similar symptoms after ingestion of such food items as chili soups, sandwiches, salads, jalapeños, pizza, Chinese pickled green turnips, and dried shrimp (Huang and Fraser, 1984).

Patients receiving total parenteral nutrition (TPN) solutions receive much greater quantities of sulfiting agents than the general population. Administration of TPN solutions containing bisulfites may result in infusion of about 950 mg/day (Metcalfe, 1984). One report of excretion of abnormal sulfur metabolites in a patient receiving TPN for 18 months (Abumrad et al., 1981) led to speculation that tachypnea in this patient might be related to abnormal sulfite metabolism (Gunnison and Jacobsen, 1983). No reports of sulfite sensitivity reactions to administration of TPN solutions were found in the literature. Similarly, no sensitivity reactions attributed to sulfites in TPN solutions have been reported to the Pharmacy and Therapeutics Committee at the National Institutes of Health (Metcalfe, 1984).

Experience with oral challenge testing of sulfites has led to differing opinions concerning the extent of sensitivity reactions to sulfiting agents. Based upon their clinical work with capsule and solution challenges of a group of asthmatic patients, Simon et al., (1982) and Simon (1984) estimate that 5 to 10% of the 10,000,000 asthmatic patients in the U.S. may be sensitive to orally ingested sulfiting agents. Buckley et al., (1985) suggest a prevalence of 4.6% for sulfite sensitivity based on capsule challenge of selected members of a clinic population having asthma and related unusual allergic symtoms. A lower prevalence of sulfite sensitivity (1 to 2% of the overall asthmatic population) is estimated by Taylor (1984b) whose clinical results with capsule challenge suggest that sulfite sensitivity is limited to steroid-dependent asthmatic patients. Patterson and colleagues have yet to identify sulfite sensitivity among idiopathic anaphylactic patients selected from an extensive asthmatic population and consider tht sulfite sensitivity may be a minor problem (Patterson, 1984). Although a number of individuals have been clinically tested for sulfite sensitivity by oral challenge, there is no compilation of data available on the distribution of asthmatic and nonasthmatic patients sensitive to sulfiting agents according to age, sex, race, genetic traits, ethnicity, and other variables.

The ad hoc Review Panel is aware of, but has had no experience with, the use of commercially available kits for individuals to test for the presence of sulfites in foods and beverages.

The Food and Drug Administration has received more than 300 letters reporting various types of adverse reactions occurring after consumption of foods containing sulfiting agents. A review of these reports has established that many are accounts submitted by individual consumers (both asthmatic and nonasthmatic persons), some are thorough case reports submitted by physicians, and some include investigations by FDA field investigators. These reports indicate an association of adverse reactions with ingestion of meals including foods containing sulfiting agents. Indeed, life-threatening reactions and deaths of four persons diagnosed as asthmatic individuals have been reported to the FDA following ingestion of restaurant meals that included foods treated with sulfiting agents. Following two of the four deaths, samples of the foods ordered by the two individuals were analyzed for sulfite content. In one case, the report of an FDA investigator included an analysis of items from the meal by an independent laboratory which indicated that two samples of lettuce served with different components of the meal contained 78 and 409 ppm sulfite and guacamole contained 272 ppm sulfite (Riddle, 1983). In the second case, analysis by FDA laboratories of shredded potatoes (cottage fries) served by the restaurant indicated that the product [fresh, raw, refrigerated potatoes containing sodium acid pyrophosphate, sodium bisulfite, calcium and sodium benzoate (Williamson, 1984)] contained 96 ppm sulfite. Reanalysis of the same product before and after cooking gave values of 615 and 582 ppm, respectively (Spears, 1984). No explanation was given for the large difference between the two analyses.

In another instance, an individual diagnosed by oral challenge as a sulfite-sensitive asthmatic patient went into a coma for three weeks after consuming a meal that included cottage fried potatoes in a restaurant; six months after the incident the patient had severe motor and neurological deficits (Simon, 1984). Analyses of samples of the potatoes used for cottage fries were 2240 ppm for those stored in the restaurant cooler prior to cooking and 2210 ppm for those cooked with oil added (Whetstone, 1984). FDA inspection of the plant where the potatoes were processed indicated that raw potatoes were peeled by abrasion, steam-cooked with water containing sodium bisulfite (approximately 2000-2500 ppm bisulfite), sliced, and refrigerated prior to distribution to restaurants (Kam, 1984).

There are few data regarding sulfite sensitivity reactions, life-threatening events or other sequelae on the part of nonasthmatic individuals ingesting foods treated with sulfiting agents. Despite the availability of the clinical reports and limited data on asthmatic patients, the Panel has found little scientific evidence that sulfiting agents added to foods contribute to sulfite sensitivity reactions of nonasthmatic individuals. Therefore, the Panel is basing its consideration of these reactions primarily on the published clinical studies and case reports of sensitivity reactions to sulfites by asthmatic patients. The analysis of the available published case reports of sensitivity reactions to sulfiting agents indicates to the ad hoc Review Panel that six different patterns of response have been described. These include:

1. Asthmatics who experience acute exacerbations of severe asthma after eating in restaurants. They respond with bronchoconstriction on oral challenge with 5 to 100 mg of metabisulfite.

2. Asthmatics with no clear-cut history of bronchial reactions following ingestion of sulfiting agents who respond with bronchoconstriction on oral challenge to 10 to 500 mg of metabisulfite.

3. Asthmatics with other allergic-type symptoms who have systemic anaphylactic reactions historically associated with ingestion of sulfites. These individuals respond with systemic symptoms after oral challenge with 10 mg of metabisulfite.

4. Asthmatics who have acute asthmatic reactions after parenteral administration of pharmaceutical agents containing sulfiting agents. They may, in addition, also belong to classes 1 to 3 above. Acute bronchoconstriction has been reproduced in these individuals by oral challenge with 20 to 500 mg of metabisulfite.

5. Nonasthmatics who may not necessarily have a history of other allergic-type reactions, but who have a history of anaphylaxis following ingestion of sulfiting agents. These individuals develop anaphylaxis after purposeful oral challenge with 10 mg of metabisulfite.

6. Normal subjects given challenges of inhaled sulfur dioxide (9 to 21 ppm) who develop bronchoconstriction with subsequent tachyphylaxis on repeated challenge. This is in contrast to the general asthmatic population who develop bronchoconstriction following inhalation of 1 to 5 ppm of sulfur dioxide.

As a result of the examination of the available data, questions have arisen regarding the prevalence of reactions to sulfiting agents used as food ingredients and the proportion of the susceptible population at risk of life-threatening reactions. It is clear that challenge with sulfiting agents may elicit acute reactions of unpredictable severity in sensitive individuals. One controlled study demonstrates that these agents used on raw lettuce can elicit the same reactions in sulfite-sensitive asthmatic patients. There is also some evidence that associates consumption of some types of potatoes, processed for restaurant use and shown by laboratory analysis to contain sulfites, with life-threatening reactions in asthmatic patients. It remains to be shown whether sulfites used in the processing of other foods are capable of eliciting reactions in sensitive individuals.

VI. OPINION

The ad hoc Review Panel is aware that exposure to sulfiting agents involves more than their use as GRAS food ingredients. Sulfur dioxide can be an air pollutant in urban areas. Many medicinals contain sulfites as preservatives; wine and beer contain sulfites; and, residuals from sulfites used as pesticides may remain in foods as consumed. These sources are subject to regulatory provisions other than those that apply to sulfites as GRAS food ingredients. This report addresses only the GRAS uses of sulfiting agents; nevertheless, the Panel recognizes that all of these sources of sulfites need to be considered, if the issues of total sulfite exposures and body burden are to be addressed.

Although the Panel has been able to obtain considerable data on the use of sulfiting agents, an accurate measure of the poundage of sulfites currently being used by the food industry and the trend in the use of sulfiting agents in food since 1975 cannot be made from information now available. We understand that steps are being taken to obtain these data to serve as a benchmark for ascertaining future trends in the use of sulfiting agents in foods.

The Panel estimates that the mean per capita daily consumption of sulfur dioxide equivalents (SDE) from food, wine, and beer is about 10 mg/day (0.17 mg/kg/day). This mean value is about the same as the intake estimate in the 1976 report of the Select Committee on GRAS Substances. The 99th percentile consumption, reflecting that of the most frequent consumers of the more highly sulfited foods and beverages, is estimated to be approximately 180 mg SDE/day (3 mg/kg/day). These estimates are necessarily derived from various sources of information including values for the amounts of sulfite added to foods and beverages. However, the Panel believes that determination of the level of consumption of sulfiting agents should be based on direct analyses of foods and beverages as consumed. Analyses should include both free and total sulfite as presently defined as well as irreversibly bound sulfite compounds remaining in food. Firm data obtained in this way for sulfite-treated foods would obviate the need to make approximations of their sulfite content based on the amount of sulfite added to foods and presumptions concerning the amount lost or irreversibly reacted in processing, storage, and preparation for the table.

Virtually all consumed sulfite is metabolized by sulfite oxidase in the mitochondria of various organs and tissues at a rate which is probably diffusion limited. The amount of endogenous sulfite is several orders of magnitude greater than that normally obtained from exogenous sources. Except for the few individuals identified as having congenital sulfite oxidase deficiency, it would appear that most individuals have sufficient enzyme to metabolize both endogenous and exogenous sulfite. Whether sulfite oxidase-deficient patients are sulfite sensitive as well remains to be established.

The no observed adverse effect level (NOAEL) of sulfiting agents in humans, based on animal toxicity data, is estimated to range from 30 to 100 mg SDE/kg/day. The margin between the amount of SDE ingested by high intake consumers and the lowest estimated NOAEL is about 10-fold and between the mean per capita daily consumption and the lowest NOAEL, about 180-fold. The margin of only 10-fold between the sulfite ingestion by high intake consumers and the lowest NOAEL represents a relatively narrow factor of safety.

However, consideration of the significance of this difference should recognize the difficulties in estimating with confidence the components which are the basis of the calculated margin.

The scientific literature indicates that sulfiting agents are not teratogenic, mutagenic, or carcinogenic in laboratory animals.

From information and data available in 1976, the Select Committee on GRAS Substances found little evidence of possible hazard to the public from use of sulfiting agents as food ingredients. However, the Select Committee cautioned that additional data would be needed to assess possible health effects if consumption increased. In 1982, FDA proposed to affirm certain sulfiting agents as GRAS and specified limitations on conditions of use.

The ad hoc Review Panel has found no new metabolic or toxicological data in this current re-review of sulfiting agents that suggest a need to change the NOAEL. Examination of exposure and consumption data indicates that the level of consumption of sulfites from foods and beverages is about the same as that estimated by the Select Committee in 1976. However, in recent years, two new aspects of the use of sulfiting agents as food ingredients have emerged. First, sulfiting agents have been widely used to preserve "freshness" in raw fruit and vegetable salad ingredients. Second, a segment of the population, predominantly asthmatic patients, has been shown to experience acute bronchial reactions following doses of sulfiting agents as low as 5 mg. The Panel recognizes that this segment of the population is not yet clearly identifiable but anticipates that it will be shown to be a small proportion of the population. In some cases, sensitive individuals have had life-threatening reactions following exposure to sufiting agents. Indeed, there are reports during the past two years of deaths of four asthmatic individuals associated with consumption of meals including foods purported to contain sulfiting agents. Although sulfite sensitivity has been demonstrated in some asthmatic patients by direct oral challenge, a cause and effect relationship between consumption of sulfite-containing foods and the onset of adverse reactions in sulfite-sensitive individuals has not been conclusively established. However, the reported associations are sufficiently numerous and the reactions sufficiently severe to deserve serious attention. Thus, practical means need to be found to protect sulfite-sensitive individuals from the potential hazard of sulfites.

The Panel concludes that additional labeling requirements alone would not assure protection. It concludes further that it would seem advisable to specify safe conditions of the use of sulfites in situations where levels shown to elicit adverse reactions in sulfite-sensitive individuals are likely to occur at the point of consumption. This is particularly likely when sulfite-treated fresh fruits and vegetables and precut potato products are dispensed in food service establishments or sold in grocery stores, and consumers, servers, and store personnel are not aware that sulfiting agents are present. Information provided to the Panel indicates that use of sulfites on fresh produce in food service establishments is being discouraged by the National Restaurant Association and the Produce Marketing Association, and that use has decreased over the past two years. Such voluntary curtailment of sulfite use on such products is an important step in reducing opportunities for unsuspecting sulfite-sensitive individuals to be exposed, and discontinuance of these uses should be encouraged by appropriate use of the regulatory process.

It would be desirable to learn whether sulfite-sensitive individuals react differently to sulfite-treated foods, in which the sulfite may be present in both the free and bound forms, than to clinical challenge with free sulfite. It might also be desirable for such individuals to learn whether they are affected adversely by other ingredients of their diet. The Panel recognizes that such clinical tests are difficult to perform and may be dangerous because of the potential hazards to sulfite-sensitive subjects.

In view of these considerations and others described in the body of the report, the Panel finds that none of the five conclusion statements considered by the Select Committee on GRAS Substances for its 1976 report is appropriate and concludes that:

A) For the majority of the population, there is no evidence in the available information on potassium bisulfite, potassium metabisulfite, sodium bisulfite, sodium metabisulfite, sodium sulfite, and sulfur dioxide that demonstrates or suggests reasonable grounds to suspect a hazard to the public when these substances are used at levels that are now current and in the manner now practiced. However, it is not possible to determine, without additional data, whether a significant increase in consumption would constitute a dietary hazard.

B) For the fraction of the public that is sulfite sensitive, there is evidence in the available information on potassium bisulfite, potassium metabisulfite, sodium bisulfite, sodium metabisulfite, sodium sulfite, and sulfur dioxide that demonstrates or suggests reasonable grounds to suspect a hazard of unpredictable severity to such individuals when they are exposed to sulfiting agents in some foods at levels that are now current and in the manner now practiced.

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IX. INDIVIDUALS AND ORGANIZATIONS RESPONDING TO THE TENTATIVE REPORT

A. OPEN MEETING PARTICIPANTS*

The Open Meeting of the ad hoc Review Panel on the Reexamination of the GRAS Status of Sulfiting Agents was held November 29, 1984. Requests were received from nine individuals and organizations for opportunity to make oral presentations. The following 12 individuals participated in the presentations:

Clifford I. Chappel, Ph.D., ILSI consultant, President, F.D.C. Consultants, Inc., Oakville, Ontario, Canada

Sherwin Gardner, Ph.D., Grocery Manufacturers Association, Washington, D.C.

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B. WRITTEN COMMENTS

The following organizations and individuals submitted written materials for consideration by the ad hoc Review Panel:

American Bakers Association, Washington, D.C.

Aristan Associates, Placentia, California

David Baltimore, Ph.D., Cambridge, Massachusetts

Mrs. Mary Bessent, Whittier, California

California Grape and Tree Fruit League, Fresno, California

Sherry N. Carr, San Jose, California

Choc Padrinos, Childrens Hospital Foundation of Orange County, Orange, California

Corn Refiners Association, Inc., Washington, D.C.

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DFA of California, An Association of Dried Fruit and Tree Nut Processors, Santa Clara, California

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APPENDIX*

Evaluation Statements Used by the Select Committee on GRAS Substances

In reaching its conclusions, the Select Committee on GRAS Substances relied primarily on the absence of substantive evidence of, or reasonable grounds to suspect, a significant risk to the public health. A conclusion, based on reasoned judgment, was expected even in instances where the available information was qualitatively or quantitatively limited. It was recognized at the outset that there needed to be agreement on the language of the conclusions so that there would be minimal opportunity for misunderstanding the Committee's intent when translating evaluation statements into appropriate regulatory action.

Accordingly, four conclusion statements were agreed upon as likely to cover all cases. However, in utilizing the four conclusions, it was soon recognized that there were instances where there were insufficient data upon which to base a conclusion, making it necessary to add a fifth statement. With very few exceptions, the Committee found that its views could be expressed in one or another of the following five conclusion statements:

1. There is no evidence in the available information on __________ that demonstrates or suggests reasonable grounds to suspect a hazard to the public when it is used at levels that are now current or that might reasonably be expected in the future.

2. There is no evidence in the available information on __________ that demonstrates or suggests reasonable grounds to suspect a hazard to the public when it is used at levels that are now current and in the manner now practiced. However, it is not possible to determine without additional data, whether a significant increase in consumption would constitute a dietary hazard.

3. While no evidence in the available information on __________ demonstrates a hazard to the public when it is used at levels that are now current and in the manner now practiced, uncertainties exist requiring that additional studies should be conducted.

4. The evidence on _________ is insufficient to determine that the adverse effects reported are not deleterious to the public health when it is used at levels that are now current and in the manner now practiced.

5. In view of the deficiency of relevant biological (and/or other) studies, the Select Committee has insufficient data upon which to base an evaluation of __________ when it is used as a food ingredient.

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* From SCOGS (1982), with permission.

QUESTION: What research has FDA conducted to determine the effects of sulfites on humans? What has that research shown? Please provide me with relevant documents and studies pertaining to that research. What levels of sulfites has FDA concluded to be dangerous to humans?

ANSWER: FDA has not conducted any research designed to determine the effects of sulfites on humans. However, FDA has conducted an extensive review of published clinical studies. This review has revealed that sulfite-sensitive individuals have been shown to experience significant bronchial reactions following doses of sulfiting agents as low as 5 mg.

QUESTION: When does FDA plan on approving the regulations published recently? Why was a complete ban not recommended since there is apparently a connection between several reported deaths and their use?

ANSWER: On April 3, 1985, FDA published a proposal to require that sulfites present in a finished food at detectable levels (ten parts per million or more) must be declared in the ingredient statement on food labeling. The comment period for this proposal ends on June 3, 1985. The Agency intends to issue a final rule as soon as possible after the closing of the comment period.

As noted above, labeling is FDA's traditional approach for ensuring the safety of food that contains substances that induce adverse reactions in some individuals. The Agency considers that the above regulation would ensure that sensitive individuals receive adequate notice of the presence of sulfites in packaged foods.

However, in light of the Panel's conclusions and recommendations regarding the adequacy of labeling for assuring protection to sulfite sensitive individuals, FDA is considering other options with regard to certain uses of sulfiting agents.

QUESTION: Does FDA currently limit use of sulfites on food? Why not?

ANSWER: The use of sulfiting agents on foods is currently considered to be generally recognized as safe (GRAS). The use of these ingredients is GRAS because they were commonly used in food before the passage of the Food Additives Amendment in 1958 without any apparent adverse effect. The reports of adverse effects from the use of these ingredients did not appear until after 1976.

Under FDA's GRAS regulations, the use of sulfites in food must be in accordance with current good manufacturing practice. Current good manufacturing practice restricts the quantity of sulfites added to food to levels that do not exceed those reasonably required to accomplish their intended technical effect. In addition, the use of sulfiting agents on meat and other foods that are recognized as a source of thiamine (vitamin B_1) is not GRAS.

QUESTION: Does the FDA require restaurants to post warnings to customers about the impact of sulfites on humans? Why not? What percentage of restaurants use sulfites or post signs warning of the dangers of sulfites?

ANSWER: FDA does not require restaurants to label the food that they serve to advise consumers of the presence of sulfites. Although the Agency has the authority to do so, it does not have the resources to enforce such a requirement. Historically, FDA has left it to the states and local jurisdictions to regulate retail food establishments. FDA provides guidance to the states by means of a model retail food code. By means of this code, FDA has recommended to the states that they require food service establishments that use sulfites on food either to notify customers of this use or to cease using sulfites. Thus far, only thirty-two states have adopted FDA's recommendation.

FDA does not have a reliable estimate of the number of restaurants that use sulfites or that post signs regarding sulfites. However, in June 1983, the National Restaurant Association reported that only four percent of their members use sulfiting agents.

QUESTION: Does FDA consider the use of sulfites to be potentially dangerous to humans if consumed? If not, how does FDA justify its position in light of the National Restaurant Association's statement that it will support legislation to completely ban sulfite use in fresh fruits and vegetables and cut or frozen potatoes?

ANSWER: FDA considers that for the majority of the population there is no evidence that demonstrates or suggests a hazard when sulfites are used at current levels. In addition, FDA considers that for the fraction of the public that is sulfite sensitive, there is evidence that demonstrates or suggests a hazard or unpredictable severity to such individuals when they are exposed to sulfites in some food at current levels.

QUESTIONS SUBMITTED BY SENATOR BURDICK

Sulfiting Agents

QUESTION: FDA's Model Food Code recommendation only covered the addition of sulfites at the retail level. Does this mean that a restaurant that does not use sulfites itself, but purchases sulfited foods from a wholesaler or distributor, could serve sulfited foods and not have to post a notice? If so, does this mean that a sulfite-sensitive patron would falsely assume that a restaurant is not serving sulfited foods as long as he or she does not see a placard displayed?

ANSWER: FDA's Model Food Code advised the states to require food service establishments that use sulfites on food sold raw either to notify customers of this use or to cease using sulfites. FDA took this action because available information indicated that the major cause of problems with sulfited food was the use of sulfites on fresh produce by restaurants. To date, thirty-two states have adopted this FDA recommendation. Additionally, the National Restaurant Association reported in June 1983, after the issuance of FDA's

Model Food Code, that only about four percent of their members were using sulfites as compared with 11 percent before FDA's action.

Although FDA recognized that restaurant patrons could still be exposed to sulfites from the use of prepared foods in restaurants, we believe that our action was necessary as an interim measure until the review of the safety of the use of sulfites was completed and other regulatory options adopted, if necessary. The Agency did recommend, through FDA talk papers and other public information media, that asthmatics and sulfite-sensitive persons request information from restaurants regarding their use of sulfites and the presence of sulfites in processed foods that they serve.

Now that the scientific review panel, established by the Federation of American Societies for Experimental Biology (FASEB) has issued its report, the Agency is considering whether other actions are necessary to protect sulfite-sensitive persons from sulfiting agents used in food.

QUESTION: Under what circumstances would FDA seek to require a warning notice on food labels alerting asthmatics and other sensitive persons to the hazards of sulfites?

ANSWER: FDA recently (April 3, 1985) published a proposal to require that sulfites present in a finished food at detectable levels (ten parts per million or more) be declared in the ingredient statement. The comment period for this proposal ends on June 3, 1985. The scientific review panel on sulfites issued its final report on January 31, 1985. The panel suggested that labeling alone would not necessarily assure protection to asthmatics and other sensitive persons who eat certain foods. Although a warning notice in food labels remains an option for FDA, at this time, with improved public education, FDA talk papers, and news media attention on sulfites, FDA is not considering proposing to require such notice.

QUESTION: How can the mere labeling of sulfite-treated restaurant food satisfactorily resolve this public health problem given all of the problems associated with labeling that have been highlighted in the statements of the National Restaurant Association?

ANSWER: The scientific review panel was also concerned about this problem. The panel concluded that additional labeling requirements alone would not assure protection. The panel voiced concern about fresh fruits and vegetables and potato products. The Agency is currently considering the recommendations made by the panel and FDA's options under its regulatory authority.

QUESTION: On January 31, 1985, FDA's expert advisory committee on sulfiting agents recommended a limited ban on the use of these chemicals. On February 15, 1985, in a memorandum to Secretary of Health and Human Services, Margaret Heckler, you stated that FDA would pursue the labeling of sulfited foods and drugs "instead of a ban." Does this mean you have rejected your advisory panel's recommendation, or has FDA reconsidered the position stated in that memorandum?

ANSWER: FDA has not rejected any of the review panel's sulfite recommendations. (We point out that the review panel was not an advisory committee. FDA contracted with FASEB to conduct the review.) However, FDA believes proper labeling of these food ingredients in packaged foods is an important first step in the regulatory process recommended by the panel. All of the panel recommendations are being reviewed within the Agency, and further action is under consideration.

QUESTION: Many food companies claim to have stopped using sulfites and switched to substitutes. This suggests that adequate substitutes exist. Is FDA actively examining suitable substitutes for sulfites in foods and drugs?

ANSWER: FDA is not conducting research for possible substitutes for sulfites. This type of research is conducted by industry because they are better able to assess the usefulness of substitutes. We have no information on how many food companies have stopped using sulfites and switched to substitutes.

QUESTION: Medaya McPike died following consumption of sulfite-treated guacamole. Under existing FDA regulations, sulfites cannot be added to foods that are a significant source of thiamine. Guacamole is a significant source of thiamine. Was the food Medaya McPike ate "adulterated" under the Food, Drug and Cosmetic Act? What specific action does FDA plan to take as a result of her death?

ANSWER: FDA has reviewed guacamole as a possible source of thiamine and has found that guacamole is not a significant source of thiamine. This determination is based upon our regulations which define a significant source of a nutrient as providing ten percent or more of the Recommended Daily Allowance (21 CFR 101.9) for that nutrient. FDA estimates that a typical serving of guacamole (125 grams, about four ounces) provides 0.12 milligrams of thiamine, which is less than ten percent of the RDA (1.5 milligrams) for thiamine. Thus, the action of using sulfites on guacamole does not make that food adulterated. FDA is currently evaluating recommendations made by the scientific review panel and is considering all possible regulatory options concerning this food.

QUESTIONS SUBMITTED BY SENATOR CHILES

Port of Miami FDA Facilities and Staff

QUESTION: Under the existing Food and Drug Administration (FDA) organization, Miami is part of Region IV, the Atlanta Region Headquarters. Orlando is the district headquarters. Along with Tampa and Jacksonville, Miami is considered an inspection post. It is my understanding that the Atlanta region has only one laboratory accommodating the inspection of food products shipped through ports in three districts while other major U.S. seaports competing for CBI cargo have their own FDA labs and offices. Please detail for me the staffing and facilities available at Miami, New York, and New Orleans.

ANSWER: The following represents the positions and facilities devoted to imports in the indicated locations.

	STAFFING		FACILITIES
	INSPECTIONS	LABORATORY	
Miami	2	3	Lab at Atlanta
New York	22	29	Laboratory
New Orleans	3	3	Laboratory

In addition to the two import inspectors assigned to Miami, there is one assigned to Tampa and one in Orlando. The Orlando person functions as an overall program manager for imports and covers the port of Jacksonville along with investigators stationed there. Also, one compliance officer in Orlando spends the majority of his/her time on import legal matters.

Also, other ports of entry, such as those along the Mexican border, result in a substantial number of FDA samples which are analyzed by FDA labs located a considerable distance from the collecting office. Miami is not at all a unique situation of having no on-site FDA laboratory.

QUESTION: Aren't cargo release times at the Ports of New York and New Orleans much faster than at the Port of Miami because of the bottlenecks associated with inadequate Miami FDA staffing and inspection facilities? Doesn't this put Miami at a severe competitive disadvantage?

ANSWER: We have not conducted a comparison of cargo release times between the Ports of Miami, New York, and New Orleans. However, we do not believe that there is a substantial difference in the handling, shipment, and analysis of samples. There may have been some differences due to transmission of import paperwork between Miami, Orlando, and Atlanta in the past, but we recently initiated overnight express mail delivery between these offices which should reduce any previous mail delays we may have encountered.

We recognize the growing importance of the Port of Miami and South Florida in imports associated with the President's Caribbean Basin initiative. Therefore, we have been striving to maintain an adequate emphasis on assuring the quality of imported products, as well as assisting importers and brokers by attempting to expedite processing of imports at the Port of Miami. We have met with importers' and brokers' representatives several times in recent months to discuss their concerns and improve operations. As a result, we have decided to increase staffing to improve operations at the Miami resident post.

QUESTION: In order to reduce the delays and costs associated with shipping through Miami, I understand the Port of Miami has requested that a compliance officer and an inspector immediately be assigned to augment existing staff. I'm told a compliance officer is the top priority. Do you anticipate such assignments soon? If not, why not?

ANSWER: We will initiate recruiting in late April or early May and expect to hire within two months one additional consumer safety inspector (CSI) in Miami to supplement the two CSIs currently on board. This will enable us to more efficiently conduct the wharf examinations, sample collections, and other necessary import inspectional activities in Miami. In addition, we are initiating recruitment of an experienced compliance officer to manage our import program for the Port of Miami. This individual will assume full responsibility for those activities now being carried out in Orlando such as making decisions on wharf examinations and sample collections; reviewing inspectional and laboratory results; issuing releases, detentions, and refusals; dealing with importers, etc. We anticipate that this selection process will require approximately three months. An additional secretary will soon be hired to assist in typing, handling telephone calls, and processing of import paperwork. In summary, we believe that these actions will greatly improve our overall South Florida import program, including cargo release time.

QUESTION: Also, does FDA have any plans to establish a laboratory facility at the Port of Miami? What would be the manpower and funding requirements for such a facility?

ANSWER: We have had discussions with the authorities from the Port of Miami and the broker community on establishing a laboratory in Miami. This is a complicated situation requiring modern, state-of-the-art facilities and laboratory instrumentation as well as a competent analytical staff. In light of present fiscal and employment restrictions, staffing for any laboratory would in all probability involve the transfer of analysts from Atlanta or other districts and thereby result in increased relocation costs for these employees. At this time, we simply have not conducted sufficient studies to determine what the ideal laboratories' staffing configuration would be nor the cost associated with such an activity.

Biotechnology

QUESTION: As you know, the Cabinet Council Working Group on Biotechnology recently issued its proposal for a framework for regulation of biotechnology. What was FDA's role in this effort and what is your opinion of the proposal?

ANSWER: Dr. Young served as Secretary Heckler's representative as well as FDA's representative on the Cabinet Council Working Group. FDA, as a regulatory Agency which oversees products of biotechnology, participated fully in the activities of the Working Group and in drafting a December 31, 1984 Federal Register notice which describes the Federal regulatory framework for biotechnology. From the FDA perspective, the notice proposes nothing new for the Agency in the area of regulation. It merely describes how the Agency has, and will, regulate products of biotechnology -- on a case-by-case basis. The proposed Biotechnology Science Board, which will provide policy coordination among the regulatory agencies in this area, is still in the conceptual stage.

QUESTION: Are the existing laws and regulatory structure sufficient to handle the evolution of this technology from the laboratory to the marketplace in your opinion? Is the public's health and well-being assured under this system?

ANSWER: Yes. FDA's case-by-case approach has worked successfully for the approval of dozens of products manufactured with the new biotechnology such as human insulin, monoclonal antibody diagnostic kits, and vaccines. The Food, Drug, and Cosmetic Act already requires stringent review of both the manufacturing aspects as well as the uses of all new drugs, medical devices, and food additives.

QUESTION: Are you concerned the existing regulatory framework may be overly burdensome to companies trying to get biotechnology products on the market?

ANSWER: No. Again, FDA has approved products of biotechnology utilizing the review and processing procedures required for other FDA-regulated products. No new administrative procedures or requirements have been necessary.

QUESTION: How could this framework be streamlined without compromising public health and safety?

ANSWER: FDA regulations appear to be working successfully already in this area. Also, we are collaborating with other Federal agencies to avoid redundancy of regulatory oversight.

QUESTION: Obviously, the release of novel substances and organisms raises some interesting questions. Critics contend we do not have enough basic knowledge or a sufficient data base regarding the interaction of these new products and the environment to allow their release at this time. How is risk evaluated as part of FDA's assessment program?

ANSWER: The Agency approaches risk assessments on a case-by-case basis depending upon the product submitted for approval. In general, however, strategies have been developed for the evaluation of various kinds of biotechnological or genetically engineered products, as well as for other products. For example, review of the production of viral vaccines involves a number of considerations including the purity of the media and serum used to grow the cell substrate, the nature of the cell substrate, the characterization of the virus, and so forth. In the case of a live viral vaccine, the final product is biologically active and is intended to replicate in the recipient. Therefore, the composition, concentration, subtype, immunogenicity, reactivity and nonpathogenicity of the virus are all considerations in the final review. Oral poliovirus vaccines, for example, are tested in nonhuman primates to assure that the vaccine is not neurovirulent or otherwise injurious.

FDA has evaluated and approved other pharmaceutical products comprised of live, genetically-engineered organisms that are administered to or ingested by human subjects. These include live attenuated viral vaccines for measles, mumps, rubella, and yellow fever, live bacterial BCG vaccine, and others which have been genetically engineered for the attenuation or enhancement of various properties. Thus, there exists a strong base of regulatory and scientific experience with these product classes within FDA.

QUESTION: Is FDA either funding or actually doing any basic or generic risk assessment research regarding genetically engineered products? If so, would you tell me about this research, the commitment in terms of manpower and funding and whether new efforts in this area will be made in the future?

ANSWER: FDA scientists are involved in research which utilizes gene splicing and hybridoma techniques. However, it is important to understand that biotechnology techniques are a means to an end, not necessarily an end in themselves, and the purpose of the research is not to refine these new technologies but to utilize them as tools for obtaining more precise information in a variety of health-related areas. This knowledge will allow the Agency to keep pace with this rapidly expanding technology and thus assist us in evaluating its products. With respect to resources devoted to biotechnology, because we have no research which can be characterized as being totally biotechnology, we have no fixed budget specifically for biotechnology. However, the Agency will continue to devote a portion of its research efforts to specific biotechnology-related research as needed. Our current estimate is that about $2 million is spent each year on research directly related to biotechnology, and we will probably spend at the same level in the next few years.

QUESTION: In your opinion, do we know enough now about the basic risk elements of biotechnology to develop a good regulatory framework?

ANSWER: Yes. It has been ten years since scientists first met at Asilomar in California to discuss the possible risks involved with genetic engineering. In those ten years scientists have amassed a large amount of data indicating that the genetic manipulation of microorganisms is perhaps safer that they had imagined. In addition, FDA has had a decade of successful experience with products of biotechnology, such as vaccines. In fact, because of technological advances in this area, new biological products of biotechnology may be better characterized, more pure and more safe.

QUESTION: In your opinion, what is an acceptable level of risk for the release of biotechnology products? Can we put a number on it in a manner similar to the way we assess financial risk, for example?

ANSWER: There is no single risk factor, which is why a case-by-case review is critical. We would note that risk/benefit considerations are extremely complex but necessary for rendering risk-management decisions, and that for the vast spectrum of products--from live vaccines to new strains of plants--both parts of the ratio vary widely.

QUESTION: What are the relatively generic problems associated with the release of novel organisms?

ANSWER: The generic problems associated with the release of novel organisms involve the probability of the following:

- Release - will the genetically engineered organism be released?
- Survival - will it survive in a natural environment?
- Multiplication - will it proliferate?
- Dissemination - will it be dispersed to distant sites?
- Transfer - will its genetic material be transferred to other species?
- Harm - will the engineered organism be harmful?

QUESTION: Do you think it is possible to have a totally complete predictive model for assessing the environmental effects of biotechnology releases?

ANSWER: No. Totally complete predictive models do not exist in any discipline in science; however, in many cases, order-of-magnitude risks can be determined and cases of expected trivial risk, such as new hybrid roses, or new mutants of penicillin-producing Penicillium, can often be identified.

QUESTION: Once release has occurred, how is monitoring of the organism or substance performed?

ANSWER: Monitoring of FDA-regulated products is accomplished by monitoring of human health effects ("adverse experiences") in the subjects to whom the products are administered. The products regulated by FDA are not intended for release into the environment directly but are designed for food or medical use for humans or animals.

COMMODITY FUTURES TRADING COMMISSION

STATEMENT OF SUSAN M. PHILLIPS, CHAIRMAN, COMMODITY FUTURES TRADING COMMISSION

ACCOMPANIED BY:

MOLLY BAYLEY, EXECUTIVE DIRECTOR
HUNT BANISTER, BUDGET DIRECTOR

INTRODUCTION OF WITNESSES

Senator COCHRAN. I welcome our second panel to the committee today. We have with us the Chairman of the Commodity Futures Trading Commission, Susan Phillips.

The purpose of the CFTC is to further the economic utility of futures markets by encouraging their efficiency, assuring their integrity, and protecting participants against manipulation, abusive trade practices, fraud, and deceit.

The 1986 budget request for the Commission is $27,222,000, a decrease of $342,000 from the Commission's 1985 appropriation.

PREPARED STATEMENT

Miss Phillips, we have a copy of your statement, which we will make a part of the record in its entirety. I invite you to introduce those who have accompanied you and proceed any way you wish.

[The statement of Ms. Phillips follows:]

STATEMENT OF SUSAN M. PHILLIPS

I appreciate the opportunity to appear before you today to summarize the the FY 1986 budget request of the Commodity Futures Trading Commission. I am accompanied today by Molly Bayley, the Executive Director of the Commission, and by Hunt Banister, the Budget Director.

The FY 1986 budget request for the Commission is $27,222,000, a reduction of $342,000 below the estimated FY 1985 appropriation. The Commission's initial budget request, sent to Congress and OMB in September, was for $31,943,000, an increase of $4,651,000 which would have allowed the Commission to cover all increases in operating expenses and to add 51 additional staff-years to its authorized level of 533 staff-years. Most of the increase requested was for enforcement rather than regulatory activities. OMB reduced this request to $27,222,000, the FY 1985 level adjusted for the 1985 pay raise and minus the amount of the proposed five percent pay reduction. The Commission appealed to both OMB and The White House, but the appeals were denied.

The Commission anticipates that, because of increases in fixed operating costs, this $27,222,000 level will require a reduction of the equivalent of 80 staff-years from the current 533 staff-year level. The Commission plans to review all of its operating costs carefully, in the hope that it can save some staff-years by operating at a "bare bones" level. However, because the Commission's budget consists of 70 percent personnel and almost 30 percent fixed operating expenses, it is difficult to find areas to cut other than personnel.

The level of service the Commission can provide with 453 staff-years is significantly less than the level provided at 533 staff-years. Because the Commission had such a short time in which to prepare the FY 1986 Explanatory Notes, we have shown the effect of a 15 percent cut in personnel across the board in all program areas. However, the Commission has begun to assess all of its program areas to ensure that scarce resources are allocated to its highest priorities. We will examine whether any regulatory or even statutory changes may be required to assist us in operating with significantly fewer staff.

It is clear that at the FY 1986 budget level the Commission must operate differently. It may be that fewer enforcement cases will be brought. The Commission will rely more heavily on the states to bring actions against persons not registered with the Commission. The Commission will continue to use the State/Federal Liaison Unit in the Enforcement Division to the best of its ability to support these activities, but it cannot guarantee that the level of support will be as high as it has been in the past.

Responses to the public in areas such as reparations will be slower. This may reverse some of the progress the Commission has made in streamlining that operation as a result of the new reparations procedures and rules. These procedures were allowed by the 1982 Futures Trading Act and became effective in April 1984. They have resulted in increased speed in adjudicating customer complaints. Progress has also been made in FY 1984 and FY 1985 in providing greater ADP support to Enforcement, Market Surveillance and other Commission programs. This "move to the modern age" in terms of computer support may also be slowed in FY 1986.

Although the Commission will try not to hinder industry growth at this reduced level, it will be difficult to complete reviews of applications for contract market designation and of contract market rules within the statutory time frames. In addition, it will be difficult to conduct regular, comprehensive reviews of the rule enforcement programs of the exchanges and NFA. In addition, few, if any, market studies or special surveillance studies will be done. Further, the Commission will not, in all likelihood, lift the moratoria on new leverage entrants, new leverage products or dealer options.

As the budget tightens, the Commission must continue to work with the industry to further the agency's commitment to industry self-regulation. However, for self-regulation to be effective, strong federal oversight is required. The Commission has shifted substantial responsibilities to the National Futures Association and will continue to look for additional responsibilities which can appropriately be shifted to self-regulatory organizations--exchanges and the NFA. To date the primary benefit from NFA has been in the assumption of responsibilities for their members, such as proficiency testing, and registration and regulation of introducing brokers, which the Commission never performed. In addition, NFA should save the Commission resources as a result of its assumption of most of the registration functions previously performed by CFTC. In the meantime, however, it has cost the Commission a great deal in staff resources to oversee the start-up of NFA and to prepare for the transfer of registration. The Commission maintains responsibility for registering floor brokers, leverage transaction merchants and their AP's. In addition, the Commission must handle registration denials, revocations and exemption petitions, and must also perform oversight reviews of NFA as well as the exchanges.

As you know, the industry has grown tremendously during the last 10 years. The volume and breadth of contracts traded and the number of registrants have risen dramatically. Because of the growth in the variety of futures and options traded, more business people than ever, including farmers, rely on futures and options as a means of managing risks.

In comparison to the growth in the industry, the Commission staff has grown very little. The agency has been able to handle the growth in size and complexity of the markets by relying on the willingness and ability of the industry to regulate itself effectively, by improving operational efficiency, by relying more on mechanized and computerized systems and by relying on the quality of work and long hours put in by the CFTC staff. Even if the staff continues to work at the maximum efficiency level and even with the careful setting of priorities, it is not certain that the agency can provide as responsive service to the public as it has in the past within the FY 1986 budget request. We will do the best we can to meet this challenge, but we cannot assure the Subcommittee that with declining dollars we will have sufficient resources to meet our growing responsibilities in as timely a fashion as might be desired. While our highest priorities will be met, certain tasks may not get done and the completion of others may have to be deferred.

I might add that although the rumor of no 5% cut in pay is good news to most federal employees, it is not necessarily good news to the Commission's budget. If the Congress opts to maintain federal pay at the current level, but does not restore the funds cut by OMB in relation to the proposed cut, we will have to take the money to restore that 5% from elsewhere in our budget. In the case of a people-intensive agency like CFTC that means staff must be cut further if the funds related to the pay cut, $759,000, are not restored.

In conclusion, in this age of budget deficits, all of us in the federal government are concerned about how we can function with less. The CFTC will do the best it can to carry out its responsibilities under these circumstances.

I will be happy to answer any questions from members of the Subcommittee.

BUDGET REQUEST

Ms. PHILLIPS. Thank you very much, Mr. Chairman and Mr. Burdick. I appreciate the opportunity to appear before you today to summarize the fiscal year 1986 budget request of the Commodity Futures Trading Commission.

I am accompanied today by Molly Bayley, the Executive Director of the Commission, and also by Hunt Banister, our Budget Director.

I do have a complete statement which I request be included in full in the record. In the interest of time, I would just like to highlight that statement.

As you mentioned, the fiscal year 1986 budget request for the Commission is $27.2 million. This is a reduction of $342,000 below the estimated fiscal year 1985 appropriation. The Commission's initial budget, which was sent to the Congress and to OMB, was for $31.9 million. This would have allowed the Commission to cover increases in operating expenses and to add 51 staff-years.

Most of the increase requested was for our enforcement and surveillance programs. The OMB did reduce this request.

In view of the growth in the CFTC's responsibilities and the growth in the regulated industry, the Commission appealed the OMB mark twice to remain at our current staffing level of 533. This would have been an amount of $30.3 million. The appeals were denied.

IMPACT OF THE BUDGET REQUEST

We anticipate that because of the increases in fixed operating costs that we face, the $27.2 million level will require a reduction of the equivalent of 80 staff-years from the current 533 staff-year level. We will, of course, review all operating costs carefully in the hope that we can save some staff-years.

However, because the Commission's budget consists of 70 percent personnel and almost 30 percent fixed operating expenses, it is difficult to find areas in which to cut other than personnel. In addition, the Commission has begun to assess all program areas to ensure that resources are allocated to the highest priorities.

At a reduced level, the Commission will rely more heavily on the States to bring enforcement actions against persons not registered with the Commission.

There may be some slowdowns in reparations, new contract designations, and rule reviews. Some projects may, in fact, have to be deferred.

The Commission will not lift the moratoria on new leverage entrants, new leverage products, or dealer options.

The Commission will continue its commitment to industry self-regulation and look for additional responsibilities which can appropriately be shifted to self-regulatory organizations—the exchanges and the NFA, specifically.

In conclusion, in this era of budget deficits, we are, of course, concerned about how we can function with less. Nevertheless, the CFTC will do its best to carry out its responsibilities and assure our highest regulatory, enforcement, and surveillance responsibilities are met.

I will be happy to answer any questions from members of the subcommittee. Thank you very much.

FISCAL YEAR 1986 STAFF-YEAR REDUCTIONS

Senator COCHRAN. Thank you. We appreciate hearing your analysis of the practical impact of a freeze of your funding level as you measure it for us in staff-years. We noticed in looking over last year's budget situation and the proposed budget freeze at that time, that you presented an estimate that there would be a reduction of 15 staff-years. This year, a freeze will effect a reduction of 80 staff-years.

What is the reason for that disparity?

Ms. PHILLIPS. Most of the increases are in operating expenses, and they are taking a bit of a jump this time. These are accounted for by increased costs in such things as our rent and communication costs, and our ADP costs. We are receiving a hike in our building rental. Also, it has to do with the increased costs of automated data processing and that kind of equipment.

We will, of course, go through and see where we can cut those expense items, with the hope that it will not be the full 80 staff-years level.

NATIONAL FUTURES ASSOCIATION

Senator COCHRAN. I know that over the last few years, there have been responsibilities delegated to the exchanges and to the National Futures Association for policing and monitoring activities, and the like, trying to ensure the integrity of the exchanges. Has this, in your judgment, been an effective way and a reliable way of monitoring and policing the activities of those whom you regulate?

Ms. PHILLIPS. Yes, sir, I think that it has. I would say that the delegation of responsibilities to the exchanges and to NFA has allowed us to accommodate the increased growth in the regulated industry.

I would say that one of the most difficult things that we do face is determining exactly what kinds of things are appropriately delegated and what we must retain. There certainly are some things that we really cannot delegate. Of course, we always must maintain a ready posture to be able to step in in the event of difficulties faced by an exchange or by NFA, which in some cases may be out of their control.

So I see that our responsibilities, in fact, are changing somewhat as we accomplish this increased delegation.

Senator COCHRAN. Assuming you do have to cut back on staff-years, what other functions or responsibilities do you think you could delegate to the exchanges or NFA?

Ms. PHILLIPS. We are looking at a number of things. In particular, we are urging the exchanges to improve their accounting techniques and their reporting techniques so that much of that activity is mechanized. That will then enable our surveillance activities to be less resource intensive. That is one area.

As you know, NFA has only really recently taken over our registration responsibilities. That shift just occurred, in fact, this past December. We are still retaining certain registration responsibilities; for example, the denial of registrations or any adverse actions that might be taken against a registrant.

So I think over a period of time, as NFA develops more fully, we would look to delegating some of those responsibilities to NFA. I think we would also like the exchanges and NFA to pick up certain surveillance activities. But we really feel that this is something we have to examine very carefully because we don't want to let go of those responsibilities until the self-regulatory organizations exhibit a readiness and a capability to take on those responsibilities.

ASSESSMENT OF THE OPTIONS PILOT PROGRAM

Senator Cochran. I know you have had a pilot program for agricultural options and nonagricultural options. How has that gone and what is your assessment of the utility of trading in options?

Ms. Phillips. I really see that program as running on two separate tracks, the nonagricultural options and then the agricultural options.

We have had a little bit more experience with the nonagricultural options. They have been trading about 2½ years now.

To date, we have not had enormous difficulties. There have not been very many customer complaints. We are taking a pretty close look at the mechanisms that the exchanges have in place to accomplish clearing. We also examine closely their marketing techniques. We will be reporting to Congress later this year because the nonagricultural options pilot program will have concluded its 3-year time limit. So, we will be making a complete report to Congress at that time.

We don't intend to lift the pilot status on the nonagricultural portion until that complete review is submitted.

Now, in the agricultural options, we have nine agricultural options trading. That really only began last fall. Some of the options only began trading within the last few months. So it is really early to make even a preliminary assessment of that program.

We haven't seen any major difficulties with it, but one of the things that we want to do is find out who is using these options and for what purposes they are using them. The program needs to develop a little further before we can make that kind of assessment.

LEVERAGE MORATORIUM

Senator Cochran. Last year there was some conversation about changing the rules as they relate to the leverage industry. Since 1978, there has been a moratorium on the entrance of new merchants into the leverage industry. Regulations have been promulgated which would allow the moratorium to be lifted.

Is there any budget impact? Is there any impact from this proposed change on the funding levels that would be needed by the Commission?

Ms. Phillips. Yes, sir. Actually, the first portion of the leverage regulations that are now in place was promulgated at the beginning of 1984. We, however, intend to keep the moratorium in place. Other portions of the leverage regulations went into effect in February 1985.

It is our intention to keep the moratorium in place until we have had an opportunity to evaluate the effectiveness and the efficiency of the regulations. Before we could even address whether or not the moratorium should be lifted, that evaluation must be completed. Our budget request for 1986 does assume that the moratorium will stay in place for fiscal year 1986.

Senator COCHRAN. Senator Burdick, do you have any questions?

IMPACT OF STAFF REDUCTIONS ON PERFORMANCE

Senator BURDICK. I have one or two.

While your budget request reflects a 15-percent reduction in staff, your performance statistics show a markedly greater reduction in performance levels. For example, your statement shows a 20-percent reduction in closed enforcement investigations, a 31-percent reduction in new enforcement investigations, a 29-percent reduction in litigation cases completed, and a 45-percent reduction in disposition of reparation cases.

Could you comment on this and describe why the reduction in these performance indicators is not closer to the 15-percent reduction in staff?

Ms. PHILLIPS. There are really two areas that I think you have touched on. I guess I would address them separately.

Let me take the reparations area first. It is somewhat separable. In one sense, that is a function of the number of complaints that we receive. We have been faced with a pretty large backlog in the reparations area. We undertook to streamline that program, not only for the filing of reparations complaints, but also for the processing of reparations complaints. In this calendar year, we have attempted to get rid of some of that backlog.

I think that some of the reduction in the processing reflects the fact that the rate of filing of those applications has been down somewhat. Also, we would anticipate that we are going to be on a current basis by the end of this year, so that we are processing reparations complaints as they occur, as opposed to adding to the backlog. I think that is part of it. Now, with the reduction in staff, we may start to build a backlog again.

In the enforcement area, I think some of those statistics have to do with the complexity of the kinds of cases that we may be looking into. I think that in the last year or so we have been addressing some larger, more complicated cases. So while the number of cases may go down somewhat, I think it is because of the complexity of those cases. We are relying increasingly on bringing joint actions with the States and supporting some of their efforts in bringing some of those kinds of cases.

I don't really view with alarm a reduction in the cases, but I think it reflects the complexity. But with your permission, I would like to check with my enforcement people and supplement the record if I haven't covered the areas.

Senator BURDICK. I wish you would, because you talk about complexity of the cases. In previous years, you had complex cases, too.

Ms. PHILLIPS. In a good number of the cases, that is certainly true. I think that some of them have taken longer than we would like for them to have taken, some of the complex cases. Some of them that have been brought also reflect a large number of floor broker cases. While they are all listed as unregistered floor broker cases, they are relatively uncomplicated cases. So while the number may have been large this year, I think some of those were not as complicated.

[The information follows:]

ENFORCEMENT REDUCTION

The projected performance statistics for the number of investigations and cases closed by the Division of Enforcement in fiscal year 1986 reflect a shift in program emphasis to more time-consuming and labor-intensive matters in addition to the 15 percent staff reduction. The enforcement program is emphasizing areas, such as FCM fraud and failure to supervise, that historically have been personnel and resource intensive.

For example, significant resources have been focused on just three investigations. During the first half of fiscal year 1985, approximately 15 percent of the enforcement staff-years have been spent on these three major investigations. Two of these investigations are of FCM's, for fraud and failure to supervise. The investigations have involved depositions throughout the continental United States and in Europe, interviews of dozens of customers and other witnesses, and the production and review of thousands of pages of documentary evidence. Such investigations require a thorough examination of the structure of the companies.

As a result of this devotion of resources to a limited number of investigations, fewer matters are being completed. We project that this impact on the number of matters completed will continue in fiscal year 1986. Further, the impact will be heightened by the budget reduction which will result in fewer people to complete the ongoing activities of the Division of Enforcement. The 15 percent staff reduction coupled with the devotion of over 15 percent of resources to three matters support the projection of a greather-than-15-percent reduction in the number of matters closed.

Having said all of this, it bears emphasizing that forecasting of enforcement activity is an inexact science at best. Part of the inexactitude stems from the fact that the resources required by any matter cannot be determined until its conclusion, and is influenced by the actions of others. Further, the enforcement program to a large extent is reactive; as new situations develop, the staff is taken from ongoing matters and thrust into the new matters. The recent situation with Volume Investors Corp. [VIC] is a good example of this. Because of financial problems, the Commission moved, on an expedited basis, to have VIC placed in receivership. The staff worked long hours in a short period to accomplish this result. However, this took the staff away from one of the major FCM investigations to which I have referred and its progress has been greatly slowed as a result.

I should also point out that the States and the National Futures Association are playing an increasing role in the policing of the commodities and commodities-related industries. We have worked closely with them in the past, both in education and enforcement efforts, and we will continue to do so in the future.

COOPERATION WITH THE STATES

Senator BURDICK. You indicated in your testimony that the Commission will rely more heavily on the States to bring action against persons not registered with the Commission. Do you have any reason to believe, or any assurance from the States, that the States will increase their regulatory action?

If you were in the hearing room when the other panel was present, I asked the basketball question. Do you see any danger of that in this case? Is the State waiting for the Federal Government and the Federal Government waiting for the State, and are we lost in between?

Ms. PHILLIPS. Yes, sir; I can't say that is not of concern to us. One of the things we have done in the last 2 years is set up a State-Federal liaison unit to provide support to the States. The other effort we have undertaken is to work with the State securities administrators' association, in developing model State legislation to address commodity fraud.

There was a change in our legislation in 1982 which gave the States increased authority which they did not have previously. They were preempted by our statute from going into some of these areas. They do have increased powers, and we are working with them to try and encourage their passage of legislation which will allow them to pursue some of these areas.

But I certainly recognize that it is a problem, and these are complicated cases. We have felt that if we didn't support their efforts, that in fact they might not be brought. But I agree with you, it is a problem.

Senator BURDICK. I liked your wording, that "allow them to pursue." That is my problem. Will they?

Ms. PHILLIPS. That is a problem. I cannot disagree with you, Mr. Burdick. It is not something that we wish to shirk, particularly, but I think that we are looking at a situation where we must allocate our resources to the highest priorities.

Senator BURDICK. I presume that 1 year's experience or so, or 2 years' experience with that will indicate whether it will work or not.

Ms. PHILLIPS. I think we have to monitor it over the next few years, yes, sir.

Senator BURDICK. Thank you.

REAUTHORIZATION

Senator COCHRAN. Next year the authorization for the CFTC expires, and I noticed in the explanatory notes your indication that there will probably be some resources used during the next fiscal year in connection with reauthorization, and that you anticipate the same kind of impact as existed in the 1982 reauthorization process.

What does that refer to?

Ms. PHILLIPS. Certainly it is in the preparation of recommendations to the Congress as to changes that should be made in the Commodity Exchange Act. There certainly would be staff time spent in that kind of research, testifying and so on.

Senator COCHRAN. Is there any chance in view of current budget constraints that you might end up requesting that some of your authority be limited, so that your staff can carry out more effectively its responsibilities?

Ms. PHILLIPS. I would certainly say that we will have to look into that area. One of the things that we are going to take a very careful look at is to make sure that we have the authority to delegate to the self-regulatory organizations certain of our responsibilities that we think might be appropriate. So that might be an area in which we would look for increased authority.

NEW EXCHANGE AND CONTRACT APPLICATIONS

Senator COCHRAN. I understand that you have some applications for approval of new exchanges and new contracts. Is there ample funding being requested, or would ample funding be made available if we approve the budget request to help you deal with the approval of these new applications?

Ms. PHILLIPS. Yes, sir; we currently process I think on average about 20 contracts a year. We have recently designated a contract on one new exchange, and we have another one scheduled for consideration early next month.

I think what will happen is that there may be some slowdowns in the considerations of some of these contracts. But our statute does require that if the contracts meet the minimum standards of the act, then we must now approve them within 1 year. That was a change that was made in the 1982 legislation.

It has put some strains on our resources. One of the areas for which we originally requested additional staffing was to address some of these increased responsibilities.

DOMESTIC/FOREIGN EXCHANGE LINK

Senator COCHRAN. Last year a new link between a domestic exchange and a foreign exchange was opened. Have you had any special problems in trying to regulate these trades that have resulted in the new link?

Ms. PHILLIPS. I would say it was a fairly resource intensive process to approve that particular application. Technically it was only changes to the Chicago Mercantile Exchange's rules. But it did entail a fair amount of research on our part, because it was a completely new kind of process. It was very resource intensive in developing the approval process and in working out the information-sharing arrangements with the Government of Singapore.

To date, we have not had any operational problems. We have not observed any problems with that particular linkage. We will incorporate into our regular rule review process of the exchanges a special section to examine how that linkage is working.

CPO/CTA FRAUD

Senator COCHRAN. There was some concern expressed in your notes about fraud in connection with solicitation of customers by commodity pool operators or commodity trade advisors. Is this something we should be aware of? Is there a new wave of fraud or a new kind of scheme being developed to fraudulently obtain business, or such things as that?

Ms. PHILLIPS. I wouldn't say that there is necessarily a new wave. This area is growing somewhat, and it is also an area that we have been looking to NFA with respect to the auditing of CPO's and looking at the activities of CTA's. They have devoted a fair amount of resources to the auditing of these entities. In fact, they are generating more references to us. So we are devoting increased resources to looking into that area.

But it has generally been a growth area in the commodities industry. It is an area to which we must devote our attention.

Senator COCHRAN. In what kinds of ways are these people defrauding customers?

Ms. PHILLIPS. The kinds of complaints that we tend to get have to do with the churning of customer accounts and statements that are made to customers that give fraudulent expectations with respect to profits.

Senator COCHRAN. Like guaranteed profits?

Ms. PHILLIPS. Exactly. That is patently illegal.

Senator COCHRAN. Senator Burdick?

STATE ENFORCEMENT ASSISTANCE

Senator BURDICK. I have one. I have been mulling your answers over in my mind while the chairman was asking you questions. Something occurred to me. You testified that you will rely more heavily on States to bring actions against persons not registered with the Commission. If you transfer all this to the States, assuming the States took this responsibility over, what happens to your organization? Aren't you working yourself out of business?

Ms. PHILLIPS. I guess in an ideal world, I wish that I could say that we would be approaching a situation where there were no crooks. We would like to concentrate on looking for difficulties in areas of CFTC registrants. This would include CPO's, CTA's, futures commission merchants, exchanges.

Let me emphasize that we do not intend, however, to abandon the area of nonregistered commodity fraud. We are looking increasingly to the States to assist us, and, in fact, to take the lead when it is appropriate. We do not have offices throughout the country. I view the States as essentially being the cops on the beat.

What we have been trying to do is support their efforts in bringing these kinds of cases, which admittedly are very complicated. I just think that it is a more efficient use of resources if we can assist them when they find these kinds of difficulties, as opposed to setting up a nationwide network.

Senator BURDICK. Well, we will see what the future brings.

Ms. PHILLIPS. I will say we must concentrate in particular in the area of our registrants, because we have exclusive jurisdiction in that area, and we don't have exclusive jurisdiction in the nonregistered area.

Thank you very much. I appreciate the opportunity to appear before this committee.

SUBMITTED QUESTIONS

Senator COCHRAN. I have no other questions at this time. If any others occur to us, we will submit them in writing and ask you to respond for the record.

Thank you very much, Ms. Phillips. We appreciate your being here. Thank you for your cooperation with this committee.

[The following questions were not asked at the hearing but were submitted for response for the record:]

QUESTIONS SUBMITTED BY SENATOR COCHRAN

OPERATING EXPENSE REQUIREMENTS

Question: Your explanatory notes, printed in January, stated that the Commission would reassess its operating expense requirements in order to determine if expenses other than those for compensation and benefits can be reduced. Have you had a chance to do that yet? What were the results of your reassessment?

Answer: The Commission plans to review its operating expense requirements for FY 1986 carefully within the next few months. In its preliminary review, the staff found few areas for potential cuts. Because the Commission has no major discretionary object classes, such as grants or building funds, any cuts would have to be made in areas such as equipment or travel, areas which will affect the ability of the remaining staff to perform their jobs.

IMPACT OF THE PROPOSED PAY REDUCTION

Question: At what appropriation level could the CFTC maintain its current staff, assuming the 5% pay reduction is not approved? What level if the reduction is approved?

Answer: Assuming the proposed 5% pay reduction is not enacted by the Congress, the CFTC would need an appropriation of $30,307,000 to maintain the current authorized level of staff and meet the anticipated increases in operating costs. It the pay reduction is approved, we would need an appropriation of $29,548,000.

ADDITIONAL STAFF ALLOCATIONS WITH INCREASED FUNDING

Question: If Congress approved a higher appropriation than the budget request, where would additional staff-years be allocated?

Answer: At the President's recommended level, it is estimated that the CFTC could fund approximately 453 staff-years or a reduction of 80 equivalent staff-years from the authorized level. A reduction of this magnitude requires a major reassessment of all program areas to determine where we could implement staff reductions which would minimize the impact on our mandated regulatory responsibilities. While this reassessment is currently underway, it is probable that all program areas will be adversely affected. Should the Commission receive an appropriation higher than the request, every effort will be made to restore all programs to the currently authorized staffing level. At this juncture, the highest priority for the restoration of staff would be in the areas of enforcement, market surveillance and critical support areas such as ADP.

OBJECT CLASSIFICATION

Question: In the object classification schedule shown in your explanatory notes, the object, "Personnel Benefits: Civilian" is not included in "Total Personnel Compensation." Why not?

Answer: The object classification structure, as shown in the explanatory notes, was established by the Office of Management and

Budget for all Federal agencies. In accordance with OMB Circular A-12, personnel compensation, object class 11, represents gross compensation for personal services rendered to the Government. Personnel benefits, object class 12, represent cash allowances for personnel benefits, such as moving expenses, and payments to other funds for the benefit of currently employed Federal personnel, such as the employer's share of retirement, FICA, health and life insurance, etc.

INCREASED COST OF COMMUNICATIONS AND OTHER RENT

Question: Under "Communications, Utilities and Other Rent," you show an increase from $4.3 million to $5.6 million, a 29 percent increase. What will this include?

Answer: Of the total increase of $1,239,000 in this account, $910,000 relates to the anticipated increase in space rental and utilities, $252,000 to the increased cost of telephones and FTS, $66,000 to the increased cost of ADP telecommunications and $11,000 to miscellaneous increases for mail and machine rentals. It should be noted that the increase in space rental is primarily related to the renewal of our ten year lease agreement. While the rental cost in FY 1986 will be somewhat higher than the present cost, it will still be lower than the market rate, as verified by an independent appraisal. The acquisition of additional space is not contemplated.

INCREASED EQUIPMENT COSTS

Question: Under "Equipment," you show an increase from $722,000 to $1.2 million, a 69% increase. What accounts for this increase?

Answer: Of the total increase of $501,000 in this account, $324,000 is for the continuation of our effort to standardize word processing equipment throughout the CFTC, $97,000 is required for the replacement of certain equipment in the New York regional office which will be over ten years old in FY 1986, $72,000 is for ADP equipment purchases and $8,000 is for the purchase of miscellaneous office equipment and books.

AUTOMATED DATA PROCESSING

Question: How are you progressing in your acquisition of the automated data processing equipment and facilities which you anticipate will meet your needs in the future?

Answer: The Commission is progressing well in its acquisition of automated data processing equipment and facilities to meet its future needs. As you know, the Commission acquired and installed an AS-5000 computer and a limited complement of peripherals in FY 1984. The equipment was obtained from the General Services Administration Automated Data Processing Resources Availability List. Since that time, the Commission has logically upgraded the initial configuration by adding peripherals. Most of this equipment was also obtained from the GSA ADP Resources Availability List. The logical growth of the AS-5000 computing environment will continue into FY 1986 with the planned acquisition of remote job entry stations for New York and Washington, a high speed printer for the central computer site, and additional microcomputers for the headquarters and regional offices. In order to assure a consistent direction and available resource capacity to meet future ADP requirements, a long range ADP plan is being developed which will be approved by the ADP Steering Committee and presented to the Commission in FY 1985. The initial long range ADP plan will cover the period of FY 1987 to FY 1991. The plan will address the Commission's current and future automation requirements, define the current capability and capacity of existing computer hardware and software, project the hardware and software necessary to meet future automation requirements, develop and analyze alternative approaches to satisfying automation require mentation. The plan will objectively indicate when it will be necessary for the Commission to acquire a new computer and the timing required for such an acquisition.

PURCHASE OF ADP HARDWARE

Question: I noticed that you are expecting to purchase almost twice as much hardware in fiscal year 1986 as in fiscal year 1985. I also notice that space, supplies, and other operational costs are also increasing. Are these increases related?

Answer: No, the cost increases are not related. The planned cost increases for hardware include new remote job entry stations for New York and Washington to provide improved access to the Commission's AS-5000 computer in Chicago, a new high speed printer for use on the AS-5000, and additional microcomputers for use by the Commission's professional staff. As discussed previously, the planned increased cost for space reflects an increase in the cost for the same space currently occupied. The planned cost increase for supplies and other, which primarily consists of license and software leasing fees, is directly attributable to the fact that front end processor software was leased for six months in FY 1985 and will be leased for twelve months in FY 1986.

LEASE OF INFORMATION EQUIPMENT AND SERVICE

Question: Although you are substantially increasing your hardware purchases, you are expecting to spend about the same amount next year on leasing of information equipment and service as you have this fiscal year. Why?

Answer: The information equipment and services leased serve a different function from that intended for the hardware to be purchased. The leased services of high speed lines and local channels are available only as leased items and are essential for providing telecommunications access to the computer from other cities. The major line item of leased information technology equipment is for machines to enter daily position information from large traders, supplied to the Commission in hard copy form. While steps are underway to require the large trader community to submit machine-readable data, it will be necessary for the Commission to continue to key that data until this requirement is in place, thus making leasing of equipment essential to daily Commission operations.

PURCHASE OF ADP PERIPHERALS

Question: Last year, you testified that only a limited complement of peripheral components was acquired from the General Services

Administration when the AS-5000N mainframe was acquired. Have you purchased any more peripherals?

Answer: In FY 1984, the Commission acquired additional peripheral equipment for the AS-5000 computer system. The additional peripheral equipment included four strings of disk drives and four magnetic tape drives. The disk drives were acquired from the GSA ADP Resources Availability List. The magnetic tape drives were purchased from the GSA schedule.

UPGRADE OF AS-5000N

Question: Do you plan to continue to upgrade the AS-5000N, or are there plans to purchase a new computer?

Answer: In late FY 1984, the AS-5000N central processing unit was field-upgraded to an AS-5000. This was accomplished by adding an additional two megabytes of main memory and increasing the size of cache memory from 8,000 bytes to 32,000 bytes. The upgrade increased the speed of the central processing unit by 15%-20%. The AS-5000 currently has eight megabytes of memory and six data channels. The central processing unit has reached its maximum expandibility. Although the central processing unit has been expanded to its limits, it is possible to add peripheral devices to the computer thus allowing the Commission to continue the logical growth of the computer system.

While there are no immediate plans to purchase a new computer system, as stated in response to an earlier question a long range plan is being developed which will be approved by the ADP Steering Committee and presented to the Commission in FY 1985. The initial long range ADP Plan will cover the period of FY 1987 to FY 1991. The plan will objectively indicate if it will be necessary for the Commission to acquire a new computer and the timing required for such an acquisition.

ADP EQUIPMENT VS PERSONNEL

Question: Is a $112,000 increase in ADP more important than retaining personnel?

Answer: Generally, the Commission staff are relying increasingly on ADP support to keep up with their growing workload. Particularly given a situation in which a large number of staff will be lost, ADP support will become even more important. Nevertheless, as a part of our ongoing review of the FY 1986 budget, the ADP budget will be scrutinized within the next few months to determine funds that will be more effectively spent on equipment or personnel.

AGRICULTURAL OPTIONS

Question: When will the agricultural options be taken out of a pilot program stage and fully sanctioned?

Answer: The agricultural options pilot program is a three-year program that commenced on October 29, 1984, the date of designation of the first six agricultural options on six exchanges. Since then an additional three contracts have been designated on three exchanges, which brings each of those exchanges to its limit of two contracts. The Commission will conduct interim evaluations of the pilot program during its life prior to deciding whether to end the pilot status of the program.

Question: Are premiums being charged so far for these options affordable for farmers?

Answer: Option premiums are determined by competitive trading on exchanges, and the prices of the various contracts change frequently in response to economic factors that affect the value of the options. Whether producers find the levels of premiums acceptable will depend on the level of premiums at a given moment, the amount of protection provided by a given contract's exercise price and maturity, and the financial status of an individual farmer. It is likely that, based on their individual circumstances, some farmers will find options to be a useful marketing tool while others will not.

Question: What has been the average premium for the various options contracts?

Answer: Prices of options reflect their different terms and change frequently in response to changing cash and futures market prices. Thus, there is no meaningful average price for the various contracts across differing commodities. However, the prices of put options for the exercise price nearest to the futures price on a typical trading day indicate the level of premiums that have existed in the market for the more active contracts.

For example, on April 4, 1985, the premium for the put option that gives the option buyer the right to sell the May soybean futures contract at $6.00 per bushel closed at 2 3/8 cents per bushel when the closing May futures price was $6.04 per bushel. On that same day the premium on the put option that gives its purchaser the right to sell June live cattle futures at 66 cents per lb. closed at 2.05 cents per lb. when the June futures closing price was 65.65 cents per lb. A table of option settlement premiums on April 4, 1985 for the most active commodities and expiration dates follows.

SETTLEMENT PREMIUMS FOR AGRICULTURAL OPTIONS

Option Settlement Premiums for the Contract Nearest to Expiration on April 4, 1985

Commodity	Exchange	Contract	Option Exercise Price	Futures Settlement Price	Option Settlement Premium
Soybeans	CBT	May Put	$6.00/bu.	$6.04	$0.02375
Corn	CBT	May Put	$2.80/bu.	$2.825	$0.005
Kansas City Wheat	KCBT	May Put	$3.50/bu.	$3.5175	$0.01
Cotton	NYCE	May Put	$0.69/lb.	$0.6949	$0.01
Cattle	CME	June Put	$0.66/lb.	$0.6565	$0.0205
Hogs	CME	June Put	$0.50/lb.	$0.4922	$0.0200

Option Settlement Premiums for Deferred Maturities on April 4, 1985

Commodity	Exchange	Contract	Option Exercise Price	Futures Settlement Price	Option Settlement Premium
Soybeans	CBT	July Put	$6.00/bu.	$6.115	$0.12
Soybeans	CBT	November Put	$6.00/bu.	$6.09	$0.245
Corn	CBT	July Put	$2.80/bu.	$2.83	$0.04
Corn	CBT	September Put	$2.70/bu.	$2.74	$0.065
Kansas City Wheat	KCBT	July Put	$3.40/bu.	$3.385	$0.07
Cotton	NYCE	July Put	$0.68/lb.	$0.6782	$0.0142
Cattle	CME	August Put	$0.64/lb.	$0.6540	$0.0205
Hogs	CME	August Put	$0.52/lb.	$0.5100	$0.0290

AGRICULTURAL OPTIONS EDUCATION PROGRAM

Question: Many farmers will not use agricultural options as a marketing tool because they don't understand them. How are you attempting to educate farmers about agricultural options?

Answer: During the last two years, the Commission has been involved in an extensive education program concerning domestic agricultural options directed toward producers, producer organizations, ag lenders, and relevant agri-businesses. We believe this effort is now paying off with the dissemination of educational information on options and other market alternatives through the USDA, farm organizations, and the land-grant universities. One result of this effort is the USDA's publication "Farmers' Guide to Trading Agricultural Options," which was produced with the assistance of CFTC personnel.

The CFTC has organized an Agricultural Advisory Committee to advise the Commission about a wide array of agricultural issues affecting producers which also serves as an educational link with the agricultural community. Patterned after a similar committee which was very successful in assisting the Commission with the agricultural option pilot program, the Agricultural Advisory Committee not only serves as a means of getting input from the agricultural community, but also helps the Commission reach agricultural organizations through direct contact with committee representatives.

The Commission also has assisted the USDA Cooperative Extension Service in developing a futures training program for state extension specialists geared toward producers. While the program's major emphasis is on futures and options, it includes all marketing alternatives for farmers. This educational program is available to the producer in all farm states.

Also in cooperation with the Extension Service, the Commission co-sponsored four regional educational conferences last year. These conferences were planned with the assistance of the exchanges, brokerage firms and other agricultural organizations to educate producers and other agribusinessmen about farm options.

In addition to these broad-based educational efforts, the

Commission specifically targets producers in its education program by working with various commodity groups and farm organizations. Ten of these groups have organized futures committees or designated individuals to develop educational programs about futures markets for their membership and to keep their membership informed about other educational resources regarding futures markets.

Finally, the Commission transmits important information to the agricultural community through its publication, AgReports. With a combined subscription list of 3,000 individuals, universities, farm organizations, and state agencies, this publication reaches many key groups in the agricultural sector. AgReports contains extensive articles on the use of agricultural options, contract information, and listings of agricultural options information currently available. Several of the agricultural options articles contained in recent issues have been reprinted and distributed separately.

NON-AGRICULTURAL OPTIONS

Question: Now that the pilot program for non-agricultural options is moving along, when can the Congress expect the Commission to allow trading to begin outside the boundaries of the pilot program?

Answer: The non-agricultural options pilot program is a three-year program that commenced on October 1, 1982. To date, fourteen non-agricultural options have been designated for trading on eight exchanges. The Commission has conducted interim evaluations and is now conducting a final evaluation of trading experience under the pilot program, along with a full review of the rules governing non-agricultural options trading. Based on the results of the final evaluation and rule review, the Commission will decide whether to end the pilot status of the options program.

NEW EXCHANGES AND CONTRACTS

Question: I understand that two new exchanges have applied for approval by the CFTC. Where are these exchanges and what kind of contracts are they asking to be allowed to trade?

Answer: The Amex Commodities Corporation, a subsidiary of the American Stock Exchange, applied to the Commission for designation as a contract market for options on physical gold bullion in February 1983; the Commission granted that application on February 15, 1985. Separately, the Philadelphia Board of Trade, a subsidiary of the Philadelphia Stock Exchange, applied on July 16, 1984 for designation as a contract market in options on Eurodollar Time Deposits and on December 5, 1984 for designation as a contract market in National Over-the-Counter Index futures contracts.

Question: What must CFTC do to approve these exchanges?

Answer: In addition to reviewing the terms and conditions of the actual contracts for which the exchanges have requested designation, the Commission also examines virtually every facet of an exchange's operations in order to ensure that the exchange will be able to carry out its statutory obligations. Thus, the Commission analyzes an exchange's application in the following areas, among others: membership structure and rules relating to admission to the exchange and its associated clearing organization; the organization and administration of both the exchange and the clearing corporation; the exchange's trading rules; the rules and procedures governing the clearing of options and futures contracts and the payment and collection of margin; in the case of options contracts, the exchange's compliance with the special customer protection rules established under the Commission's options pilot program; the exchange's enforcement and disciplinary programs; the exchange's program for the establishment and enforcement of minimum financial requirements for those of its members which are futures commission merchants; and the exchange's program for the arbitration of customers' claims and grievances. To put this into perspective, the staff's review of the ACC application took nearly two years, culminating in a 150-page memorandum to the Commission in which the staff recommended approval of that application.

Question: Can the CFTC do the necessary work within the funds requested?

Answer: As indicated above, the ACC application has already been reviewed and approved. Moreover, substantial time and effort has already gone into reviewing the Philadelphia Board of Trade's initial application; the Commission expects to act upon the Eurodollar option contract within the next several weeks. Thus, a good deal of the more resource-intensive work has already been completed or will be completed during fiscal year 1985. These types of applications nonetheless result in a tremendous drain on the Commission's resources. The Commission has traditionally managed to complete its review and analysis of new exchange applications without undue impact upon other Commission activities and programs. Section 6 of the Act was amended in 1983, however, to specify that all such applications must be acted upon by the Commission within one year of their filing unless the application is "materially incomplete". As a result, the Commission has had to devote greater resources than ever to assure that all such applications are completed within that statutory timeframe. Any new filings of this complexity would likely require the diversion of resources from other programs, particularly if the Commission is required to reduce the size of its staff. Slowdowns in contract approvals may occur with reduced staff. Rule change remittals or deficiency citations may also occur as a result of the timing constraints. Moreover, the designation of these new contracts necessitates the extension of the Commission's market and trade practice surveillance programs to these new markets.

IMPACT OF LIFTING THE LEVERAGE MORATORIA

Question: Since 1978, there has been a moratorium on the entrance of new merchants into the leverage industry, where precious metals are sold on a kind of installment plan. Regulations have been promulgated, which would allow the moratorium to be lifted. Senator Lugar's amendment to our bill last year required 60 days Congressional notification prior to lifting the moratorium. Now that regulations for the trading of leverage contracts are in place, and it appears that at least three firms may be eligible to transact leverage contracts under the statutory moratoria, what would be the impact on the Commission's budget if these moratoria were lifted?

Answer: The Commission estimates that eventually between 13 and 25 percent more staff would be required if the moratoria were lifted. Nevertheless, I would point out that the Commission has no immediate plans to lift the leverage moratoria and the FY 86 budget request reflects that intention. It is premature to consider lifting the moratoria since the regulations are not fully implemented with respect to the grandfathered firms (one firm is registered and the other two applications are pending). Some amendments to the rules are also under Commission consideration. Only after the rules are fully implemented with respect to the grandfathered firms can the Commission begin to assess their effectiveness and efficiency to make a determination as to the appropriateness of expanding off-exchange leverage transactions.

LEVERAGE INDUSTRY

Question: Do you see any likelihood or feasibility that the leverage industry might form a self-regulatory organization similar to the organization for the futures industry, the NFA? Could this type of organization make it easier to lift the moratorium?

Answer: Although section 17 of the Act does not preclude other registered futures associations, the leverage industry has thus far made no effort to form a self-regulatory organization comparable to the National Futures Association. An effective self-regulatory organization must be well-captalized if it is effectively to carry out the diverse obligations that the Act and the Commission's regulations have established for all registered futures associations. Moreover, the Act and the Commission's regulations specify that the rules of any such association must be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, and to protect the public interest. A self-regulatory association of leverage transaction merchants would have to be willing to enforce those rules with respect to its membership and, where necessary, mete out sanctions such as fines or expulsion from the association for violations of the rules. Such a new organization could be formed but may have difficulty meeting the standards established for such associations. Moreover, the qualification of a new self-regulatory organization would be a resource-intensive process. Although NFA could feasibly assume certain regulatory responsibilities with respect to leverage, there is a question as to whether the Commission currently may delegate leverage regulation to NFA in a manner consistent with the existing regulatory scheme. Considering the time effort, and expense put forth by the futures industry to establish the NFA it does not appear that the leverage industry would be likely to form a similar organization in the near future.

RESOURCES REQUIRED FOR REAUTHORIZATION

Question: The Commission's current authorization expires September 30, 1986. The explanatory notes indicate that CFTC will spend about the same amount of resources during the fiscal year 1986 reauthorization as it did during the fiscal year 1982 reauthorization, but the amount is never mentioned. How much do you estimate that CFTC will spend on reauthorization efforts?

Answer: During FY 1982, CFTC staff recorded 15,400 hours devoted to reauthorization, which equals about 9 staff-years. This figure does not include the time of the Chairman, Commissioners and their staffs. If the number and complexity of the issues raised during reauthorization is the equal to 1982, the Commission would have to spend the same amount of staff-years in FY 1986. However, the Commission is making every effort to keep the 1986 reauthorization process as simple as possible.

INTERNATIONAL TRADING

Question: Last year, a new link between a domestic exchange and a foreign exchange was opened. How is international trading progressing?

Answer: The linkage between the Chicago Mercantile Exchange and the Singapore International Monetary Exchange, Ltd. was approved by the Commission in August 1984. At that time, the Commission specifically approved mutual offset system trading in Eurodollars, Japanese Yen, and Deutschemark futures contracts. The CME has subsequently applied for permission to trade gold futures through the mutual offset system. The volume of inter-exchange trading in those contracts which have been approved has been relatively modest, however. For example, approximately 800 Eurodollar contracts are being executed each day through the mutual offset system, with volume from the CME to SIMEX more or less equalling the volume of trades originating in Singapore for execution in Chicago. Inter-exchange volume in the Yen and Deutschemark contracts is considerably lower. By comparison, average "non-linkage" volume for the CME Eurodollar contract has recently been approximately 20,000 contracts per day.

Question: Have you had any problems trying to regulate these trades?

Answer: No. Before the Commission approved the establishment of mutual offset trading it went to great lengths to obtain adequate assurances from all parties involved with this novel arrangement, including the Monetary Authority of Singapore, that the performance of the Commission's regulatory functions would not be impeded.

Question: Do you monitor the international exchange continually or periodically?

Answer: The Commission does not directly monitor SIMEX. Instead, the Commission focuses its attention on the effects the internationalization of the futures markets may have upon the domestic markets that are subject to the Commission's oversight. Thus, for example, the Commission receives reports routinely from the CME which provide essential data such as information relating to the size of large traders' positions and volume, open interest, and prices on SIMEX.

Question: Do you have an agreement with foreign governments to police their end of international link-ups before the link-ups are approved?

Answer: With respect to the CME-Simex linkage, the Commission expects the CME to obtain whatever market or trade practice surveillance information may be necessary directly from its clearing members or from the Singapore Exchange. The Commission did nonetheless engage in discussions with the Monetary Authority of Singapore regarding the exchange of information between our two governments should that be necessary.

NATIONAL FUTURES ASSOCIATION

Question: What responsibilities does NFA now have?

Answer: NFA's principal responsibilities fall into five categories: the processing of applications for registration; arbitration; compliance with minimum financial requirements; members' sales practices; and testing of associated persons and other registrants.

Registration Processing

The Commission issued an Order, effective December 3, 1984, which authorizes NFA to perform the Commission's registration processing functions for futures commission merchants, commodity trading advisors, commodity pool operators and their associated persons. This supplements earlier Commission Orders giving NFA comparable authority with respect to introducing brokers and their associated persons and authorizing NFA to issue temporary licenses to certain qualified associated persons. The Commission still has exclusive responsibilility and authority for the denial, suspension, revocation and withdrawal of registration although it is anticipated that NFA will be allowed to exercise those functions by the end of the fiscal year. By comparison, the Commission must currently operate a registration program for floor brokers and for leverage transaction merchants and their associated persons.

Arbitration

NFA has set up an arbitration forum for the resolution of disputes between their members and customers. There was never an arbitration forum at the CFTC.

Minimum Financial Requirements

As required by Section 17(p)(2) of the Act, NFA has rules which require it to establish minimum capital, segregation, and other financial requirements for futures commission merchants and, with the exception of the segregation requirements, introducing brokers comparable to the requirements which are imposed by the Commission. Section 17(q) of the Act further requires NFA to develop a program which fully implements those rules by September 30, 1985. NFA has designed a financial audit program and audits those futures commission merchants which are not members of any of the contract markets and for which NFA therefore has the exclusive responsibility under the industry-wide Joint Audit Plan. NFA is discussing a plan to conduct audits of futures commission merchants' compliance with the requirements relating to the segregation of customer funds with the Commission and with the exchanges, with whom NFA might appropriately share this responsibility. Developments in this area has significantly improved the quantity and quality of auditing programs of CFTC registrants.

Sales Practice Standards

Both Section 17 of the Act and NFA's Order of Registration with the Commission require NFA to establish minimum standards governing the sales practices of its membership and to develop and execute an audit program to test its members' compliance with those standards. Although NFA is continuing to develop and refine its rules in this area, the Commission will not abdicate its own authority and responsibility. By comparison, NFA is almost exclusively responsible for conducting sales practice audits of all segments of the industry other than floor brokers and leverage transaction merchants. The Commission will not be able to dismantle its own sales practice audit program because of the need to continue to closely monitor NFA's expanding responsibilities.

Proficiency Testing

Under Sections 17(p) and 17(q) of the Act, NFA must develop training standards and proficiency testing for persons involved in the solicitation of customers, their supervisors, and all other persons for whom NFA has registration responsibilities, as well as a program to audit for, and enforce compliance with, those standards. Rules adopted by NFA and approved by the Commission during fiscal year 1984 provide that APs associated with NFA-member futures commission merchants, commodity trading advisors, commodity pool operators and introducing brokers must take and pass the National Commodity Futures Examination before acting as an associated person. Although the CFTC had the authority to set up a testing program itself, the Commission thought it was more appropriate for such a program to be developed and administered by a self-regulatory organization.

CFTC VS NFA RESPONSIBILITIES

Question: What are the differences in CFTC's and NFA's responsibilities with respect to audits?

Answer: In certain areas, such as the auditing of commodity pool operators where NFA is still moving towards a satisfactory level of audit coverage, there is very little difference in the audit functions performed by the Commission and by NFA. In such an instance, the actual responsibility to perform these audits rests with NFA; the Commission has continued to perform some of these direct auditing functions, however, in order to minimize what might otherwise be serious shortfalls in the audit coverage of certain segments of the industry. The Commission ultimately expects, however, to recede from this type of direct, front-line auditing and allow NFA to do what it was established to do -- conduct audits in conjunction with the contract markets of members' compliance with rules governing minimum financial and segregation requirements, sales practice standards, proficiency testing, and other, similar matters. The Commission would be able to turn more of its attention to regulatory oversight over the futures industry and, in particular, oversight audits of NFA's various programs in order to gauge the effectiveness of those programs. The Commission's staff has worked closely with NFA to assure the prompt and effective development of NFA's sales practice and financial oversight programs as well as of NFA's registration, arbitration, and public education procedures. Indeed, the staff has already conducted several reviews of NFA's operations in these areas. In addition to commenting upon NFA's current activities, the staff's reports on those reviews have presented findings which assist NFA in implementing an acceptable compliance program.

RELATIONSHIP WITH NFA

Question: Do you have a good working relationship with NFA?

Answer: From the outset, the Commission and NFA have had a productive and mutually beneficial working relationship in which NFA, working with the Commission and under its oversight, has begun to develop a self-regulatory program that complements the regulatory scheme that has been established by the Commission. This subject will be further addressed in the Commission's report to Congress on NFA next year.

Question: What problems have you encountered in delegating some of your responsibilities to them?

Answer: There is only a limited number of functions that the Commission can be said to have delegated to NFA. Prominent among these is the processing of applications for registration and related materials where NFA now performs many of the tasks that were formerly the Commission's exclusive responsibility. In this context, the Commission believes that the relative inexperience of the NFA staff and the design problems of NFA's computer system for registration processing will be remedied by time and experience and by the application of NFA's substantial resources. NFA's registration processing staff is more than double the size of its former counterpart at the Commission. It should be noted, however, that even after the Commission delegates certain other elements of its registration program, specifically, the authority to take adverse action, such as a denial or suspension, with respect to an application for registration in the latter part of fiscal year 1985, the Commission will still have the responsibility, and the need to maintain a program, for the registration of floor brokers and leverage transaction merchants and the associated persons of leverage transaction merchants.

The only other area where the Commission truly can be said to have delegated its responsibility to NFA involves the auditing of those futures commission merchants which are not members of any of the contract markets for compliance with the Commission's net capital requirements. This is precisely the type of function that should be performed by a self-regulatory organization. NFA's assumption of responsibility for the non-member segment of the industry effectively complements the already existing inter-exchange Joint Audit Plan and has allowed the Commission to shift many of its auditing resources from direct, "hands-on" auditing to much-needed oversight and direction of the industry's own efforts. In auditing the NFA, the Commission has advised NFA that it must increase the frequency of its sales practice audits. Separately, the Commission has reminded NFA of its statutory obligation to establish an effective program for the auditing of futures commission merchants' compliance with the rules relating to the segregation of customers' funds. The final report on NFA due to be submitted to Congress will assess NFA's progress in these and other areas.

FLOOR BROKERS

Question: Why are floor brokers not required to be members of NFA?

Answer: The organizers of NFA believed that any new, industry-wide futures association such as NFA should be designed in such a way as to avoid the creation of standards or the imposition of requirements that were incompatible with those that might be established by the exchanges. Although this reservation of authority was subsequently modified at the Commission's insistence in order to ensure that NFA's customer protection program would not be impeded by the existence of inconsistent NFA and exchange rules on a particular subject, NFA's authority was never extended to the floor brokerage community. Floor brokers are, of course, subject to supervision by the exchanges.

STATE ENFORCEMENT

Question: Will there be any cutbacks in such programs as the Federal/State Liaison Unit and joint enforcement actions?

Answer: As I indicated, the Commission is carefully reviewing its 1986 budget to identify areas where non-personnel costs might be decreased and is also reviewing its program priorities to determine how best to apply the staff reductions. The State/Federal Liaison Unit will continue to be available to institute joint enforcement actions, but our role may be limited to more of an advisory one.

STATUS OF THE HUNT BROTHERS' CASE

Question: What is the current status of your case against the Hunt Brothers, et al.?

Answer: The civil administrative action against Nelson Bunker Hunt, William Herbert Hunt and four other individuals and three corporate entities has been assigned to an Administrative Law Judge and is in active litigation. The matter is proceeding according to the Commission's Rules of Practice which are contained in Part 10 of the Commission's Regulations. Now that the case has been filed, the Commission is a decisional body and cannot consult with or be advised on this case by any officer or employee of the Commission involved in investigative or prosecutorial functions in this or related matters. Accordingly, my response is limited to items in the public record.

At the request of certain Respondents a Stipulation was entered into with the Division of Enforcement which allows these

Respondents until April 12, 1985, to answer or move for more definite statement pursuant to Rule 10.23 of the Commission's Rules of Practice. The Stipulation was accepted by the Administrative Law Judge.

CFTC ACTIONS TO PREVENT SIMILAR PRACTICES

Question: What action has CFTC taken to prevent similar practices from occurring in the future?

Answer: Since 1980 the Commission has adopted a number of new regulations that were designed to enhance market surveillance. The Commission also has been examining more closely exchange market surveillance programs and requiring exchanges to strengthen the programs in a number of areas such as staffing, data collection and analysis, and ADP support. As a result of these rule enforcement reviews, exchanges have made substantial improvements in their own surveillance activities.

The regulatory changes adopted by the Commission involve speculative position limits, foreign trader reporting, and net capital requirements of futures commission merchants ("FCMs"). The Commission now requires, and every exchange has adopted, speculative position limit rules for all futures and options contracts. These rules should prevent the establishment of massive speculative positions that can be used to manipulate or disrupt a market. To strengthen the Commission's ability to collect surveillance data from foreign traders, the Commission adopted a rule designating domestic FCMs as agents to receive Commission communications to foreign brokers and traders and a new special call rule that provides that if the requested information is not provided, the trader may not execute any additional trades other than to liquidate existing positions. Finally, net capital rules of FCMs were strengthened to require the more immediate collection of margin and to prevent the use of the full value of the commodity to support a loan to purchase the related future.

QUESTIONS SUBMITTED BY SENATOR ANDREWS

LEVERAGE RESOURCES

Question: On March 20, you testified before the House Agriculture Subcommittee on Conservation, Credit, and Rural Development. At that time you said that 16% of all complaints received at the CFTC in 1985 concerned leverage companies. How many leverage companies are there? How many FCM's? Is that overwhelming? How much of your resources does it take to follow through on these complaints?

Answer: There are now three leverage firms in operation who have applied for registration under the Commission's rules. One has been registered by the Commission and the registrations of the other two firms are pending. At the end of FY 1984, there were 457 FCM's. Complaints involving leverage instruments have stayed at about 20 per firm per year. Because the total number of complaints filed was low in the first quarter, leverage complaints rose as a percentage of total complaints. The leverage complaints include complaints against all companies offering leverage instruments, including the three which have applied for registration. Given the small number of firms offering leverage instruments, the number of complaints filed is substantially larger than the number of complaints filed against most FCM's. The Commission estimates that 3 to 4 staff-years in the Office of Proceedings were spent on leverage complaints during FY 1984.

LEVERAGE REGULATION

Question: At that same hearing, you were asked if you thought leverage contracts were the same as futures. And you responded "we believe that leverage contracts are really economically and legally indistinguishable from futures contracts." If so then why are they not regulated as futures? Why did you set up a separate regulatory system for these few firms?

Answer: Commission staff studies have historically and uniformly concluded that leverage contracts are legally and economically indistinguishable from futures contracts. A 1976 CFTC advisory committee report on market instruments and some academic work have noted the existence of differences between leverage and futures which may arise in part from the fact that one is traded in an exchange setting while the other is not. In any event, Congress has directed the Commission to issue comprehensive regulations separately governing the class of off-exchange transactions called leverage transactions. Pursuant to this directive, the Commission has recently issued comprehensive regulations applicable to certain leverage transactions. Since these contracts do not trade on an exchange and are not subject to the protections of exchange self-regulation, the regulatory structure for leverage is different from that governing exchange-traded futures.

RESOURCES DEVOTED TO LEVERAGE

Question: How much of your resources are devoted to these two or three firms?

Answer: Based upon our analysis of the expenditures of Commission resources during the first quarter of FY 1985, we project that the Commission will expend between ten and eleven staff years of time during FY 1985 on the regulation of leverage transactions.

CFTC RESPONSIBILITIES REGARDING LEVERAGE FIRMS

Question: When the CFTC was first established were you not designed as an oversight agency? Is that the function you perform for the leverage firms?

Answer: The Commission was created to provide strong federal oversight of an industry governed by self-regulation. In this regard, the Commission's primary role has been overseeing the self-regulatory efforts of the exchanges and, most recently, the National Futures Association. In the area of the regulation of leverage transactions, however, where there is an absence of a self-regulatory organization, the Commission's function becomes one of direct, hands-on, regulation rather than its traditional role of providing regulatory oversight. As a result of the cost-intensive nature of this direct regulation, and in light of the budgetary restrictions under which the Commission will be operating in the future, the Commission will not, in all likelihood, be able to lift the moratoria on the entry of new firms into the leverage business or the offering of new leverage products in the near future. In any case, it is premature to consider lifting the moratoria since the current regulations have not been fully implemented and accordingly, the Commission has not had the opportunity to evaluate the effectiveness or efficiency of this regulatory program.

IMPACT OF LIFTING THE LEVERAGE MORATORIA

Question: If at some point in the future, an FCM purchased a leverage company, wouldn't this put even more pressure on you to lift the moratorium?

Answer: I don't believe that the purchase of a leverage company by an FCM would put additional pressure on the Commission to lift the moratoria. In this regard, I would point out that two of the three firms registered or seeking registration as leverage transaction merchants are owned by or affiliated with companies registered as FCMs.

Question: Once this moratorium is lifted, would that in effect establish an over-the-counter futures market?

Answer: Should the moratoria eventually be lifted in their entirety, I would agree that the effect would be the establishment of an off-exchange market in instruments similar to futures contracts.

Question: Is that what was contemplated by the Congress when it enacted the Commodity Exchange Act?

Answer: While the Commodity Exchange Act requires futures contracts to be traded on exchanges, Congress has also provided that the Commission adopt regulations governing leverage transactions, which are off-exchange instruments.

LEVERAGE RESPONSIBILITIES OF NFA

Question: Some people have suggested that NFA, the National Futures Association, should regulate leverage. Do you feel that the NFA is far enough along to take on this kind of added responsibility?

Answer: The Commission's Division of Trading and Markets has already conducted several audits of NFA's financial, sales practice, registration, or arbitration programs as part of the Commission's oversight of NFA. These audits have identified a number of areas where the staff felt NFA had to make improvements in the design or execution of its various self-regulatory programs. Some of these recommendations have already been put into place by NFA; others must still be implemented. Although the NFA has not yet fully implemented its mandated program, we will be continuing to review their progress and fully expect them to undertake additional programs as they mature as a self-regulatory organization.

Question: Wasn't the NFA established to be the self-regulator for the FCMs?

Answer: While many of NFA's most important functions, such as auditing for compliance with minimum capital and segregation requirements, relate principally or exclusively to futures commission merchants, NFA was established to police those segments of the futures industry that were operating outside of the direct jurisdiction and scrutiny of the exchanges. Thus, commodity pool operators, commodity trading advisors and, more recently, introducing brokers have been brought under NFA's self-regulatory umbrella. All of these segments of the industry, including the tens of thousands of associated persons whom they employ, ultimately must direct their customers' orders, however, to one of the twelve exchanges that has been designated by the Commission as a contract market. The regulation of off-exchange instruments such as leverage contracts requires a different regulatory scheme.

Question: What is NFA's record on sales practices for the FCM community? Does it need more work in this area? What about sales practice audits? Has NFA done all it could do in this area?

Answer: The Commission's Division of Trading and Markets recently completed its second oversight audit of NFA's sales practice program. In its report, the Division found that while NFA has adopted sales practice rules in a number of areas, it should consider rules relating to the management of accounts by futures commission merchants and introducing brokers, advertising and sales communications, and the disclosure of all commissions and fees to prospective customers. The Commission has also directed NFA to consider the development of appropriate "suitability" or "know-your-customer" standards which would apply to member firms' dealings with the public. Separately, the Division of Trading and Markets found that NFA was not completing its sales practice audits on a timely basis and further, that it was conducting only two-thirds of the number of audits contemplated by its own internal audit guidelines. The Division also found that NFA has not established a satisfactory mechanism for the auditing of the vast preponderance of its futures commission merchant membership which also belongs to one or more of the exchanges. The staff has transmitted its report, including the findings and recommendations therein, to NFA and has requested that NFA respond by May 31, 1985. The staff will then conduct a follow-up audit of NFA's progress prior to the transmittal of the Commission's formal January 1, 1986 report to Congress.

Question: Are there other areas in which NFA could devote more of their own resources other than taking on a completely new line of work such as the regulation of off-exchange futures trading or better yet an over-the-counter futures market?

Answer: The Commission expects NFA to continue to develop its self-regulatory program in numerous significant respects. For example, NFA does not now conduct sales practice audits of those futures commission merchants which are also members of any of the contract markets even though the vast preponderance of all futures trading is conducted through those firms. Similarly, while NFA's audit program contemplates surprise audits of the branch offices of these member firms, NFA has yet to conduct a routine audit of any branch offices nor has NFA begun to audit guaranteed introducing brokers. NFA also has yet to complete its routine audits of member futures commission merchants, commodity trading advisors, commodity pool operators, and introducing brokers on what the Commission would deem to be a timely basis. NFA must also continue to develop sales practice regulations in order to provide concrete guidance to its membership as to what conduct is permitted and what is proscribed. Additionally, NFA must develop a mechanism for the auditing of futures commission merchants' compliance with the requirements relating to the segregation of customer funds.

SUBCOMMITTEE RECESS

Senator COCHRAN. The subcommittee will have 3 days of hearings on April 15, 16, and 17, during which we will hear from witnesses from the general public. We are inviting anyone who is interested to submit statements for the record, in addition to presenting oral testimony. We will be happy to have the benefit of the advice and counsel of anyone who is interested in making suggestions to us about the appropriate level of funding for all of the activities that come under the jurisdiction of this subcommittee. Until April 15, the committee stands in recess.

[Whereupon, at 11:18 a.m., Thursday, April 4, the subcommittee was recessed, to reconvene at 2 p.m., Monday, April 15.]

MATERIAL SUBMITTED BY AGENCIES NOT APPEARING FOR FORMAL HEARINGS

[CLERK'S NOTE: The following agencies of the Department of Agriculture did not appear before the subcommittee this year; however, at the request of Chairman Cochran, each of these agencies did prepare and submit testimony in support of its fiscal year 1986 budget request. Upon receipt and following review of the testimony, questions were propounded to the agencies. The answers provided to the subcommittee follow each agency's prepared statement.

The subcommittee wishes to thank the agencies for their cooperation and to assure them that the information they provided will be most helpful in formulating the 1986 Agriculture appropriations bill.]

DEPARTMENT OF AGRICULTURE

OFFICE OF THE SECRETARY AND DEPARTMENTAL ADMINISTRATION

STATEMENT OF JOHN J. FRANKE, JR., ASSISTANT SECRETARY FOR ADMINISTRATION

Mr. Chairman and members of the Subcommittee, I appreciate the opportunity to appear today to discuss with you the activities and fiscal year 1986 budget request for the Office of the Secretary, Departmental Administration, the Advisory Committees, Standard Level User Charges, and the services provided to USDA agencies through the Working Capital Fund.

At the outset, I want you to know that we fully support the Administration in proposing budget decreases for a number of these activities. At a time when many programs are proposed for reduction or elimination, we all need to do our utmost to reduce these budget deficits. I want to assure the Committee that this is not something we do lightly. We believe that the decreases we are requesting are essential to accomplish the goal of reducing government spending, and are representative of efforts to demonstrate effective management practices.

It is important to understand that USDA funding and personnel resources for Departmental level policy direction and administrative support are among the smallest in the Federal Government, particularly when considered in light of the size and complexity of USDA programs. We are proud of the our past record, and the fact that USDA has run an effective Administrative operation. But we know that in FY 1986 we can and we must do more with less. We know that we must move with the times, and accept this as an opportunity to demonstrate, and practice, effective management principles. It is easy to speak of "good" management; but in lean years, managers must produce.

We will begin in FY 1985 to position ourselves, through careful examination of workloads, reassessment of duties and procedures and where necessary realignment of activities and functions, so as to successfully manage and operate at the reduced FY 1986 level. That process of reassessment and evaluation is already underway. These are opportunities to refocus our attention and efforts, to increase the use of ADP technology and increase office automation, to discard outdated procedures, to simplify regulations and bring a common sense, business like approach to our work. These changes will mean, in some cases, completely altering the way we normally do business or the level of support we provide. I would now like to review some of the specific proposals for FY 1986.

OFFICE OF THE SECRETARY

The appropriation for the Office of the Secretary provides funds for the Secretary, the Deputy Secretary, the Under and Assistant Secretaries and their supporting staffs. The fiscal year 1986 budget request for the Office of the Secretary totals $4,659,000, a net decrease of $710,000 (or about 13 percent) below the current estimate for fiscal year 1985. This decrease includes $29,000 for increased pay costs associated with the Federal pay raise which was effective this past January. This increase is offset by a decreases of $513,000 to be achieved through management savings and $226,000 for a 5 percent pay reduction in fiscal year 1986.

DEPARTMENTAL ADMINISTRATION

The fiscal year 1986 budget request for Departmental Administration is $16,776,000, a net decrease of $2,434,000 (about 13 percent) under fiscal 1985. The budget includes an increase of $409,000 for the costs of the FY 1985 Federal pay raise and $71,000 for the Office of the Administrative Law Judges/Judicial Officer to hire an editor for the "Agriculture Decisions" and acquire modern wordprocessing and ADP equipment. The estimate also includes a 5 percent pay reduction of $1,019,000 and management savings of $1,895,000. The latter reduction is to be achieved through a variety of measures. These include: consolidation of services, shifting workloads, increased automation, streamlining of processes and procedures, and reduced staffing levels through hiring restraint and attrition. We are prepared in Departmental Administration to demonstrate that effective management practices, properly implemented, can reinforce program efforts.

ADVISORY COMMITTEES

The Agriculture, Rural Development and Related Agencies Appropriations Act for fiscal year 1983 established a consolidated account for USDA Advisory Committees. The fiscal year 1986 budget request for Advisory Committees is $1,323,000. This is a $62,000 decrease from the FY 1985 level of $1,385,000.

Advisory Committees provide assistance to the Department by providing USDA agencies supplemental and specialized expertise from academia or the private sector on a broad range of issues. As it is not feasible to maintain these experts as permanent staff, the Advisory Committees provide the framework for these services on an as needed basis. While these committees fulfill an important purpose, the Department feels that the number of committees can be reduced from thirty-six committees in FY 1985 to thirty-one in FY 1986. Eight are established by statute, and the remaining twenty-three are established by the Department either independently or with the concurrence of interested Congressional Committees.

STANDARD LEVEL USER CHARGES

The account represents a consolidation of funds previously included within the individual appropriations requested for the various agencies and offices of the Department. On October 1, 1984, the GSA delegated to the Department the operations and maintenance functions for the buildings in the D.C. complex to the Department. This consolidated account provides funding for the Department to pay the General Services Administration for rental of space and related services and provides Departmental staff and support services to operate, maintain and repair the five buildings in the D.C. Complex. GSA retains overall responsibility for major non-recurring repairs.

The fiscal year 1986 budget request is $77,300,000; an increase of $10,046,000 above the current 1985 budget. Of the $77,300,000, $59,500,000 is the actual payment of rent to GSA. The budget request is our best estimate of what these charges will be in FY 1986. Of the $10.0 million increase, $3,646,000 represents the correction of an error in the estimate for rent made in 1985. An additional $2,400,000 would permit the D.C. Building Operations and Maintenance to program continue to operate at the same level as in prior years. In FY 1985 GSA agreed to transfer $13,800,000 for the costs of this activity; however, only $11,400,000 would be credited by the GSA to the Department in FY 1986; therefore the increase of $2,400,000 is needed to maintain the FY 1985 level. An increase of $4,000,000 is also requested for the Operations and Maintenance program to begin addressing long deferred and sorely needed repairs to the D.C. complex. The Department is faced with a backlog of repairs estimated at $70,000,000. The $4,000,000 represents a beginning installment to replace and repair such things as steam pipe insulation, thermostats and radiators, electric wiring and circuit breakers, leaking pipes, guard rails, stairs, and elevators. All the maintenance items are things that go with older buildings. These repairs are vitally needed, in many cases required, to bring the complex up to fire and safety code specifications.

WORKING CAPITAL FUND

For forty-two years, USDA has been providing central services to its agencies through the Working Capital Fund (WCF). Since its beginning, we have sought to provide the best services possible at the lowest cost. I think that USDA and the Congress can take pride in the fact that these efforts have been largely successful. Perhaps some background will show where we stand and what we have accomplished in the Fund.

The National Finance Center in New Orleans, Louisiana is the largest WCF activity. The Center serves as a model for the entire Federal Government, pointing the way to effective provision of centralized finance, accounting, payment, personnel, property management, data processing, and recordkeeping. Departmental Computer Centers in Washington, DC; Kansas City, Missouri; and Fort Collins, Colorado, provide cost effective data processing services to USDA agencies. Here in Washington, the WCF provides the means to finance centralized service activities in supply, mail, printing and reproduction, forms, copier service, photocomposition, photography, video, film, and design services.

Over the past several years, we have improved management control and oversight mechanisms to insure the integrity and financial stability of service activities. Two features of this improved management control structure are: 1) the Interagency Review Board, which serves as a "Board of Directors" in reviewing WCF activities and advises me in my role as "Chief Executive Officer" of the Fund, and 2) the Comptroller, who oversees the Fund and is in a position to recommend to me actions that are in the best interest of overall operations of the WCF. The budget reflects careful review and scrutiny by the Board, the Comptroller, and myself and is in keeping with the overall climate of fiscal restraints.

Mr. Chairman, the Committee has been helpful in the past few years, by amending legislation to allow the inclusion of "Growth Capital" in the Fund. This has allowed the Working Capital Fund to avoid excessive leasing costs by buying capital equipment when it is more economical to do so. Last year, for the first time in the forty-two years since the creation of the Working Capital Fund, Congress appropriated additional funds to purchase capital equipment. This improved our opportunities to avoid excessive lease costs for users of these central services, and we are grateful for your support. We are now in the second year of a four to five year effort to upgrade equipment to better serve our agencies. However, we are still leasing equipment that should be purchased. Our lack of sufficient funds prevents our buying this equipment, which means that our client agencies are paying rates higher than necessary. Our aim is to provide the most efficient, effective, and economical services possible. Therefore, as part of this multi-year effort, the fiscal year 1986 budget request includes $6 million to purchase additional equipment for WCF central services which will allow us to avoid more expensive leasing costs.

We have intensively reviewed the equipment installed or planned for Working Capital Fund activities. Our analysis indicates that these activities would spend $2.1 million in annual lease payments for ADP and telecommunications equipment which could be purchased for about $6.0 million. Total lease payments for this equipment over its useful life (through fiscal year 1991) would be $12.8 million. If the Congress approves our appropriation request, we will be in a position to purchase this equipment and thereby achieve a net cost savings of $6.8 million over the life of the equipment. This translates into reduced costs for our agencies.

While this request for capital procurement funding is substantial, it is based on sound management principles. We will, of course, continue to annually evaluate our needs and will hold our Working Capital Fund request to the lowest possible level, while using available resources to obtain maximum possible benefits for our user agencies.

The budget also projects overall operating levels for Working Capital Fund activities. These operating levels are reimbursed by USDA and other government agencies and are based on their demand for Working Capital Fund services.

Responsibilities at the National Finance Center now include servicing arrangements to perform payroll, personnel and other services for the Departments of Commerce and Education, and the Merit Systems Protection Board. The overall operating level for the Working Capital Fund in fiscal year 1986, excluding capital equipment acquisition, is estimated at $100,349,000. In estimating this operating level, we took these new interdepartmental servicing agreements into account, reduced WCF management costs by 10% and factored in a 5% cut in salaries as well. The result is an increase of $2.0 million (about 3 percent) over the 1985 level. This is based on inflation, workload projections including increased workload at the NFC generated through service of Agencies outside USDA, and increases in operating costs. These factors result in increases of about $1.5 million at the NFC and about $900,000 at the computer centers and a reduction of $400,000 resulting primarily from reduced volume in our USDA Printing Plant. It is planned that the Printing Plant will be phased out at the end of fiscal year 1986.

Mr. Chairman, that concludes my prepared statement. We have provided additional information in our budget justifications and would be glad to provide any further details the Subcommittee may require. We are available to answer any questions you may have.

QUESTIONS SUBMITTED BY SENATOR COCHRAN

OSEC VACANCIES

Question: There have been vacancies in the Deputy Secretary and in several Assistant Secretary positions. Has this resulted in any savings within the appropriation labeled "Office of the Secretary?" If so, how much, and what will the savings be used for?

Answer: Between January 1 and April 27, the following positions became vacant in the Office of the Secretary: The Deputy Secretary of Agriculture, the Assistant Secretary for Economics, the Assistant Secretary for Marketing and Inspection Services, and the Assistant Secretary for Natural Resources and Environment. An OSEC employee is currently awaiting confirmation as Assistant Secretary for Marketing and Inspection Services. The salaries and benefits associated with the remaining three positions would have been $61,539 between January and April. Part of this amount will be used for modest expenses associated with office changes for the new appointees. The remainder will be used for policy planning and other programs and activities conducted within the Office of the Secretary.

Question: Do Acting Assistant Secretaries receive additional pay for the time they occupy the acting status?

Answer: No, they do not.

Question: Have any major problems occurred as a result of the vacant positions? Please explain.

Answer: There have not been major problems, but we are anxious to have all nominations confirmed as quickly as possible.

BOARD OF CONTRACT APPEALS

Question: According to the explanatory notes, the Board of Contract Appeals is a reimbursable activity. Who reimburses the Board for its services?

Answer: The Board is reimbursed by agencies who benefit from its operation. These agencies are:

- Agricultural Research Service
- Agricultural Stabilization and Conservation Service
- Animal and Plant Health Inspection Service
- Farmers Home Administration
- Food and Nutrition Service
- Forest Service
- Soil Conservation Service

Question: Are all the expenses of the Board covered by reimbursements?

Answer: In previous years, amounts obtained through reimbursements were not always sufficient to cover the full cost of operation of the Board. When this occurred, shortages were funded from the direct appropriation for the Office of the Secretary. Beginning with fiscal year 1985, a concerted effort has been made to recover the full cost through reimbursements. We expect this practice to continue.

OSEC-REIMBURSEMENTS

Question: Under the heading "Obligations under other USDA Appropriations", most of the offices or programs listed are not provided by direct appropriation. Please list each item and under what USDA appropriation it is provided.

Answer: Certainly.

[The information follows:]

Activity	1986 Estimate	Participating Agencies
Board of Contract Appeals...........	$625,000	Agricultural Research Service Agricultural Stabilization and Conservation Service Animal and Plant Health Inspection Service Farmers Home Administration Food and Nutrition Service Forest Service Office of Operations Soil Conservation Service
Grain Storage and Elevator Safety..	105,000	Agricultural Research Service Agricultural Stabilization and Conservation Service Cooperative State Research Service Extension Service Federal Grain Inspection Service National Agricultural Library Office of the Inspector General
Forest Service.......	73,000	Forest Service
Agriculture in the Classroom.........	110,000 1/	
Presidential Exchange	73,000	Federal Crop Insurance Corporation
Food and Fitness.....	180,000	Agricultural Research Service Agricultural Stabilization and Conservation Service Agricultural Research Service Cooperative State Research Service Extension Service Farmers Home Administration Food and Nutrition Service Food Safety and Inspection Service Forest Service Human Nutrition Information Service

Consumer Advisor....	105,000	Agricultural Marketing Service Agricultural Research Service Animal and Plant Health Inspection Service Economic Research Service Extension Service Food and Nutrition Service Food Safety and Inspection Service Forest Service Human Nutrition Information Service Rural Electrification Administration Soil Conservation Service
Food and Nutrition Service..........	66,000	Food and Nutrition Service
International Affairs and Commodity Programs..........	24,000	Agricultural Stabilization and Conservation Service Federal Crop Insurance Corporation Foreign Agricultural Service
Agriculture Listening Sessions......	100,000 1/	
Miscellaneous Reimbursements...	124,000 2/	

1/ This activity, which is Departmentwide in scope, is no longer planned for FY 1986.

2/ These reimbursable activities have been transferred to the Office of Governmental and Public Affairs.

OSEC STAFF YEARS

Question: Why is the number of permanent staff positions under this appropriation higher than the staff-year ceiling for your office?

Answer: An employee occupying a full-time permanent position on an annual basis works 2,080 hours, or one staff-year. However, not all of the positions in the Office of the Secretary are full-time permanent positions. Within the Office there are temporary or part time appointments under which the hours worked equate to less than one staff year; in some cases, the hours worked under two or more of these appointments must be added together to total one staff year. That is the reason the number of permanent positions exceed the staff-year ceiling.

OSEC REDUCTIONS

Question: Why is personnel compensation being reduced by $410,000, an 11% decrease?

Answer: This net reduction in personnel compensation reflects Administration proposals to reduce Federal pay by five percent ($203,000) and to realize administrative and management savings ($232,000). These reductions are partially offset by an increase of $27,000 for annualization of fiscal year 1985 pay costs.

Question: With the Farm Bill being rewritten this year, and with the necessary travel associated with promoting its provisions next year, will $231,000 (a decrease of 13%) be enough for travel purposes?

Answer: The FY 1986 travel budget will be tight, but we will be able to fulfill our functions.

CONSULTANTS

Question: What services are obtained with the $75,000 provided for employment under 5 U.S.C. 3109?

Answer: Earlier this fiscal year, a consultant was hired for 120 days to provide the Deputy Secretary guidance, counsel, and research in writing the Farm Bill. USDA currently has a consultant on a 60-day appointment to assist the Assistant Secretary for Economics by coordinating major high level socio-economic analyses policy and program studies, evaluations, and reviews in support of short and long-range Administration and Department goals. The Department currently has no plans to hire other consultants in the Office of the Secretary for the remainder of this year or next year.

RENTAL CARS

Question: Are the two rental vehicles used by the Secretary and Deputy Secretary only for official use, or for full-time use?

Answer: The Secretary of Agriculture, as a member of the Cabinet, has a car assigned to him for full-time use. The Deputy Secretary has a car assigned to him during work hours for official use only.

REFORM 88 PLANS

Question: Please highlight the Department's actions planned for Reform '88.

Answer: Many of the actions planned for under Reform '88 are now in place as ongoing initiatives and projects. Recently, the Secretary announced a USDA Management Plan that incorporates many of the Reform 88 initiatives into a general program that is designed to help make USDA's management and operations among the "best" and to help meet one of the most challenging periods in its 122 year history. Five management categories outlined in the Plan are:

- Financial Management: managing cash, debt, government travel, and providing financial services to other Federal agencies (cross servicing);
- Information Resources Management: enhancing computer capability, oversight, communications, and acquisition;
- Cooperative Processing and Program Support: streamlining management structures and administrative systems, improving program delivery, encouraging "cooperative" or shared systems processing.
- Effective Workforce Utilization: improving work environments, position management, employee/supervisor communications, employee participation, education and training;
- Productivity Improvement: conducting productivity reviews, reviews of management practices, reviews of commercial activities that could be privately contracted, maintaining an environment that is receptive to change and innovation.

All USDA agencies have been asked to develop initial action plans and to begin implementation of this program this Spring.

ST. LOUIS COMPUTER CENTER

Question: Has the closing of the St. Louis Computer Center been completed?

Answer: Yes. While the St. Louis Computer Center as an entity ceased to exist October 1, 1984, the complete transition of processing ended in February 1985. The entire FmHA ADP workload is now being transmitted electronically from remote devices in the FmHA office in St. Louis to the Kansas City Computer Center for processing.

HONOR AWARDS

Question: Last year, when questioned about the Honor Awards Ceremony, you supplied the Committee with figures showing that you spent $9,850 for acquisition of plaques and emblematic pins, and preparation of certificates for awardees. I realize that this is a small item to be questioned, but that figure does draw some attention. Are the plaques, pins, and certificates that expensive, or is there a large number of awardees?

Answer: The cost figure supplied last year was an estimate of the cost of plaques, pins and certificates required for FY 1985. However, we estimate the cost will be $8,515 or less.

During the Honor Awards Ceremony to be held on June 19, 1985, the Department will present individual honor awards to 85 people. Each of these will receive a plaque and a pin. In addition, group honor awards will be provided to 14 groups composed of 138 employees. Each group will receive one plaque and each member of the group will receive a certificate and a pin.

Accordingly, the ceremony this year will require 99 plaques at a cost of $39.95 each for a total of $3,955--we have saved $10 per plaque this year; the cost was $49.95 per plaque last year), 223 pins at approximately $8.07 each for a total of $1,800, and 138 certificates. Last year each certificate cost $20. We are exploring an option for preparing certificates that may enable us to obtain them cheaper.

ADVISORY COMMITTEES

Question: Your statement indicates that you plan to reduce the number of advisory committees. Please list the committees you plan to eliminate, your justification for each decision, and how much money each elimination will save.

Answer: We are planning to eliminate seven committees. The amounts shown in the table are based on what it would cost to operate the committees in FY 1986.

(The information follows:)

ADVISORY COMMITTEES TO BE DISCONTINUED

Committee Title	FY 1986 Estimated	Cause of Elimination
Dietary Guidelines Advisory Committee.................	$10,000	Committee has prepared its report and will send it to the Secretaries of USDA and HHS
National Advisory Committee on Child Nutrition..........	37,770	USDA is recommending repeal of sections of the National School Lunch Act
National Advisory Council on Maternal, Infant and Fetal Nutrition.................	32,201	USDA is recommending repeal of sections of the Child Nutrition Act
Technical Advisory Committee for Trade in Sweeteners and Tropical Products..................	16,000	Membership duplicates the Commodity Policy Advisory Committee
National Agricultural Cost of Production Standards Review Board..............	30,200	Charter expires 9/30/85
Aquaculture Advisory Board	0	USDA is recommending repeal of sections of the National Agricultural Research, Extension and Teaching Policy Act Amendments of 1981
Rangeland Research Advisory Board............	0	Same as above

Question: How many times did each Advisory Committee meet last year? Please include those committees which did not meet at all.

Answer: I will provide for the record information on Advisory Committees under this appropriation

[The information follows:]

NAME OF COMMITTEE	NUMBER OF MEETINGS
Advisory Committee on Foreign Animal and Poultry Diseases (APHIS)..........	1
Advisory Committee on Instrument Standards for Cotton (AMS)............	2
Advisory Committee on Meat and Poulty Inspection (FSIS)....................	2
Advisory Committee on Swine Health Protection (APHIS)..................	0
Agribusiness Promotion Council (OICD)...	1
Agricultural Policy Advisory Committee for Trade (FAS)......................	2
Agricultural Technical Advisory Committee for Trade on Cotton (FAS)............	1
Agricultural Technical Advisory Commmitee for Trade on Dairy Products (FAS).....	2
Agricultural Technical Advisory Committee for Trade on Fruits and Vegetables (FAS)	2
Agricultural Technical Advisory Committee for Trade on Grain and Feed (FAS).....	3
Agricultural Technical Advisory Committee for Trade on Livestock and Livestock Products (FAS).......................	2
Agricultural Technical Advisory Committee for Trade on Oilseeds and Products (FAS)	2
Agricultural Technical Advisory Committee for Trade on Poultry and Eggs (FAS)...	2
Agricultural Technical Advisory Committee for Trade on Sweeteners and Tropical Products (FAS)......................	1
Agricultural Technical Advisory Committee for Trade on Tobacco.................	2
Animal Health Science Research Advisory Board (CSRS).........................	2
Aquaculture Advisory Board (CSRS).......	0
Citizen's Advisory Committee on Equal Opportunity (OEO)....................	1
Committee of Nine (CSRS)...............	3
Dietary Guidelines Advisory Committee (HNIS).....................	2
Federal Grain Inspection Advisory Committee (AMS)......................	6
Flue-Cured Tobacco Advisory Committee (AMS)......................	2
Food and Agricultural Sciences National Needs Graduate Fellowships Grant (ARS)	1

NAME OF COMMITTEE	NUMBER OF MEETINGS
General Conference Committee of the National Poultry Improvement Plan (APHIS)........................	1
Hop Marketing Advisory Board (AMS)......	1
Human Nutrition Board of Scientific Counselors (ARS).....................	1
Joint Nutrition Monitoring Evaluation Committee (HNIS).....................	5
National Advisory Committee for Tobacco Inspection Services (AMS).....	2
National Advisory Council on Child Nutrition (FNS)......................	0
National Advisory Council on Maternal, Infant and Fetal Nutrition (FNS)......	1
National Advisory Council on Rural Development (ORDP).............	0
National Agricultural Cost of Production Standards Review Board (ERS).....	2
National Agricultural Research and Extension Users Advisory Board (S&E)..	3
National Arboretum Advisory Council (ARS)..............................	1
National Plant Genetic Resources Board (ARS).........................	2
Policy Advisory Committee for the Science and Education Research Grants Program (CSRS)......................	2
President's Task Force on Food Assistance (OSEC)....................	9
Technical Advisory Committee for Science and Education Research Grants Program (CSRS)..............................	14
Special Study Committee on Cotton Premiums and Discounts for Upland Cotton (ASCS)..............................	1

WORKING CAPITAL FUND

Question: What has been or will be purchased with the $6 million appropriated to the Fund this year?

Answer: I will be pleased to provide that information.

[The information follows:]

FY 1985 PLANNED USE OF CAPITAL EQUIPMENT APPROPRIATION

Description	Amount
Purchased:	
Central Core Pods	$ 50,000
IBM 3081 System	4,890,000
IBM Personal Computers	15,000
Xerox 9400	54,000
Subtotal Purchased	$5,009,000

FY 1985 PLANNED USE OF CAPITAL EQUIPMENT APPROPRIATION, Continued

Description	Amount
Planned:	
Upgrade of IBM 3081 System	$ 746,000
IBM Personal Computers	100,000
Entry Control System Additions	5,000
Karr 400 Microform System	90,000
Graphics Terminal and Plotter	50,000
Subtotal Planned For Purchase	991,000
TOTAL FY 1985 USE OF CAPITAL APPROPRIATION	6,000,000

Question: What will be purchased with the $6 million you request for next year?

Answer: We will be happy to provide that for the record.

[The information follows:]

FY 1986 PLANNED USE OF CAPITAL EQUIPMENT APPROPRIATION

Description	Planned Amount
1. Sperry Univac Mainframe 1100/92	$5,427,000
2. IBM Disk Storage 3380	500,000
3. IBM Control Unit 327X	32,000
4. IBM 3299 Multiplex	6,000
5. Color Graphics Terminal	16,000
6. Personal Computers	19,000
TOTAL FY 1986 USE OF CAPITAL APPROPRIATION	$6,000,000

Question: The Working Capital Fund now performs services for the Departments of Commerce and Education, and the Merit Systems Protection Board. How did the agreements with these agencies evolve?

Answer: Among the Reform '88 initiatives proposed by the President was the aim of consolidating administrative payment procedures as a cost-saving and efficiency enhancement measure. As a result, USDA's National Finance Center was selected as a potential source for consolidating administrative payments, personnel/payroll, and billings and collections services. Therefore, non-USDA agencies were encouraged by OMB to take advantage of our existing service mechanisms, rather than develop new systems independently. The Department of Education, the Department of Commerce, and the Merit Systems Protection Board entered into negotiations with the National Finance Center to agree on specific services to be provided, implementation schedules, and costs for rendering such service.

The history of the agreements begins with the NFC-Department of Education agreement. NFC began processing the administrative payments of the Department of Education in October 1983. Administrative billings and collections for Education were to be phased-in at a later date, and we expect this to occur during this fiscal year. The NFC later negotiated agreements with the Merit Systems Protection Board to handle payroll/personnel transactions, administrative payments, and accounting on their behalf. Actual service to MSPB began in October 1984. Implementation plans and cost schedules for handling the personnel/payroll transactions for the Department of Commerce were completed at the end of calendar year 1984. Services will begin later this year.

Question: Are any agreements with other agencies foreseen?

Answer: No additional non-USDA workload at the National Finance Center is planned. However, I understand that other Federal agencies are closely following this effort.

Question: When assessing the charges to agencies for Working Capital Fund services, are any fixed expenses included, or is the charge limited to the actual computer and personnel time required to perform the service?

Answer: All costs are included since the Working Capital Fund is a revolving fund and as such must recoup all expenses it incurs, whether they are fixed or variable. If the Working Capital Fund fails to recover its expenses, it would have to cease operations eventually.

PRINTING PLANT

Question: What savings will be achieved by closing the USDA Printing Plant?

Answer: As you know, the Printing Plant is being phased out over a three year period. The numbers of jobs being sent through the Plant are being reduced, commensurate with the FTE reductions we are making there. These FTE reductions make up most of our reduced operating costs in the Plant. Between fiscal years 1983 and 1984, the annual cost of operating the USDA Printing plant dropped $278,022. The operating cost for FY 1985 is estimated to be $906,316 less than the 1984 level; a comparably lower USDA in-house printing cost. However, it would not be accurate to say that these operating cost reductions represent cost savings to USDA agencies, because they are relying more on contract printing services as the Plant is phased out. It would also be difficult to estimate the cost savings for contract printing services since each printing order is bid on an individual basis. Each printing order is placed with the lowest qualified bidder, so that the most economical printing service available is attained.

GSA TRANSFER

Question: Has the transfer from GSA to USDA of the operations and management functions for the buildings in the D.C. complex caused any problems?

Answer: The USDA has been pleased with the results of the recent transfer of authority from GSA to operate the D.C. complex. Like any transfer of function, there have been several minor problems but these have been resolved with GSA in a professional and expenditious manner.

STANDARD LEVEL USER CHARGES

Question: Why are you continuing to pay GSA if they have transferred these functions to the Department? Is it only for rent?

Answer: The standard GSA delegation calls for USDA to continue paying standard level user charges for GSA space occupied by the Department. GSA then remits funds to operate and maintain the D.C. building complex. The exact amount to be returned to USDA is established by GSA based on historical data and projected needs.

Question: Why is GSA only crediting $11,400,000 to the Department in fiscal year 1986, when it credited $13,800,000 fiscal year 1985 for the same activities?

Answer: In FY 1985 the Department paid GSA the full SLUC based on current rates for GSA controlled space. However, in FY 1985 GSA transferred $13,800,000 back to USDA as a reimbursement based on their assessment of the cost of buildings operations and maintenance performed under the terms of the Delegation of Authority.

In FY 1986 there will again be a transfer of funds from GSA for performance of the buildings operations and maintenance. The problem is that GSA has appraised the value of our operations maintenance function in FY 1986 at $11,400,000, so we are requesting the difference in our budget. This level of financing was agreed upon as part of the delegation and assures that GSA has a continued level of oversight and control in the management of the D.C. building complex as stipulated under the delegation.

Question: Your statement says that GSA retains overall responsibility for major non-recurring repairs. You also say that the Department is faced with a backlog of repairs estimated at $70 million. Are all of the repairs in the backlog considered as recurring repairs which would not come under the responsibilities of GSA?

Answer: The $70 million of needed repairs are the requirements to correct safety and functional deficiences. The backlog continues to grow. The needs of the the complex are even greater since major environmental systems equipment replacements are needed. While GSA does maintain overall responsibility, USDA is responsible for the operations, maintenance and repair of the complex.

To date no clear definition of a non-recurring repair has been established, and there seems little possibility that GSA will initiate a program to correct or even reduce the $70 million backlog. Therefore, USDA is proposing to proceed with a limited repair program to correct the smaller problems.

AUTOMATED DATA PROCESSING

Question: Are the requests for ADP funds included in individual agency budgets?

Answer: Yes. Requests for all ADP, Telecommunications and all other IRM funds are included in agency budgets.

Question: Department-wide, you plan to increase the purchase of hardware by $31 million, or 28%. Yet, your purchase of software, your systems analysis and programming, and your systems design and engineering are reduced significantly. Has software already been developed and purchased for this new hardware?

Answer: In the case of some agencies, which plan to install the same software systems throughout their field structures and have these systems developed centrally, there will be one set of software developed or purchased. In other cases, agencies intend to use off-the-shelf software or packages obtained from software vendors under proprietary licenses in their headquarters and field projects. The number and use of the hardware components will greatly outnumber the software. Thousands of microcomputers will be using the same software over and over again to produce results with different data. In many cases, these software packages have already been purchased.

The Department encourages the use of these pre-programmed packages whenever possible and cost-effective to avoid the often expensive and resource consumeing development of customized software.

Question: You show an increase of 216 workyears in ADP personnel. Will most of these be new employees, or will you train current employees to perform these functions?

Answer: There will be few new employees among the increase in ADP workyears. By definition in the reports forming the basis for your question, an ADP person is anyone who spends more than 50% of his/her time on ADP projects. With the explosive increase in the use of microcomputers by all kinds of Agricultural professionals in the fields of economics, forestry, soil conservation and others, the amount of time spent on productive use of ADP equipment has risen dramatically. Many of these professionals are now being counted as "ADP personnel" though their primary discipline has not changed. In that sense, current employees from all walks of agricultural life, are being trained to perform these functions.

Question: The staff-year level of USDA is being reduced by over 10,000. How do you justify increasing ADP staff-years when the rest of the Department is taking such a cut?

Answer: In spite of significant cuts throughout the USDA, any increases in ADP personnel could be justified on the basis that most agencies and most companies in the private sector look to ADP and, therefore, to their ADP staffs to automate more functions and projects as the primary means of continuing to maintain adequate service levels with less resources in the program areas. Traditionally, ADP staffs have been the mainstay of an organzation's efforts to absorb personnel cuts in most areas without degrading the organization's ability to carry out its mission.

Question: An increase of over 50% is scheduled for operations and maintenance. Why is this anticipated?

Answer: This category "Commercial Services, Operations and Maintenance", is the one which indicates the amount the Department expects to spend on contracts with private industry for the operation and maintenance of ADP equipment. There are increasing efforts on the part of USDA agencies in line with Administration policy to rely as much as possible and where costs effective, on the private sector to provide these contractual services of facility operations and equipment maintenance. Where scarce government resources exist, it is necessary and useful to increase our use of private industry for those services it can provide (operations and maintenance) and use government ADP employees for those functions only they can provide (analysis of government requirements and other related government business).

Question: For both inter-agency services and intra-agency services, there are "payments" and "off-setting collections" categories. For inter-agency services, off-setting collections amount to only a small portion of payments, but for intra-agency services, off-setting collections amount to about 50% more than payments. I assume that off-setting collections come from those receiving the service. To whom are payments made?

Answer: Payments are made by the Agency or Bureau receiving the services and off-setting collections are made by those providing the services.

Question: Why are intra-agency collections so much higher than payments?

Answer: Intra-agency collections and payments should balance or net out to zero. Since the collections are concentrated in the few "big providers of services", the Departmental Computer Centers and the National Finance Center, the collections are quite accurate and reliable. So many agencies receive the services and therefore make the payments, there is high probability that they have erroneously put some of the payments in other categories. Systems analysis and programming, and studies under the Commercial Services category are often used incorrectly to reflect payments that are really made to Departmental Computer Centers and therefore should be put under Intra-agency payments.

Question: Why are inter-agency collections so much lower than payments?

Answer: Inter-agency collections are so much lower than payments because USDA agencies pay out to other Government Departments and Independent Agencies more than they take in from those Agencies in money for ADP services provided.

DEPARTMENTAL ADMINISTRATION - ADP PLANS

Question: There is a 26% increase planned for lease of equipment, and a 42% increase in leased telecommunications services. Could you summarize the reasons for these increases?

Answer: Departmental Administration manages and operates the four largest computer centers used by the agricultural agencies. Agency program accomplishment is increasingly dependent on the timeliness and accuracy of its information for decision making. Added to this, is the need for more information requested by the private and public sectors in agricultural areas. This has led to an increase in the storage of large data bases or agricultural information at the Departmental Computer Centers and the need for additional acquisition of storage devices. Additional equipment to process and distribute the required program information has contributed to the planned increases in leased equipment.

In addition, as part of the President's and the Secretary's efforts to reduce Federal spending by avoiding duplication, the Department is cross-servicing other Departments and Agencies. These governmentwide efforts reduce overall ADP costs. The recipient Agency saves significantly, while our increased costs are minimal. By agreement with the Agency served, USDA recovers all costs incurred by the need to lease additional euipment or telecommunications services.

The Departmental Computer Centers are service organizations, reacting to the expressed requirements of the Agencies. If the projected requirements fail to materialize, the additional equipment will not be leased.

It is expected that telecommunications use will continue to increase significantly over the next several years. There are several major projects underway to provide increased services (information) to the farm community and other users of Agricultural data at local offices. To accomplish this requires a widely distributed network of computer and communications capability. County and State offices will be accessing information from Headquarters and centralized data banks at the computer centers and giving this to the farmers right at the time of their request. This level of responsiveness requires significant increases in the use of modern telecommunications.

To accomplish the cross-servicing of other government agencies successfully also requires that USDA provide them with the means to gain access to our computers which is done through telecommunications services. Here again, these additional services are recovered by reimbursable agreements.

ASCS -- ADP Plans

Question: Under ADP explanatory notes for ASCS Salaries and Expenses costs are separated from CCC costs. You show $57.6 million in projected costs for Salaries and Expenses and an increase of 252 workyears. Yet, the budget proposes to reduce ASCS staff years overall. Could you please explain this discrepancy?

Answer: While it is true that the ASCS Budget proposes both staff year and dollar reductions for FY 1986, the apparent discrepancy between the budget proposals and the increased staffing is easily explained. As SCOAP implementation proceeds, the Agency will experience an obvious transition from manual processes and paper flows to an automated environment. This automation will involve development and maintenance of applications, procedures, and program operations. Therefore, the proportion of our remaining total staffing in FY 1986 that have automation responsibilities will be higher relative to the staffing prior to full implementation.

Question: What is the status of the effort to equip all county and State ASCS Offices with on-site computers?

Answer: ASCS has recently completed the "project validation" phase of this effort. All country and State Offices in California, Kanasas and South Carolina have had IBM System/36 equipment installed. They are currently using this equipment in day-to-day operations for selected programs. A formal assessment of the project thus far has shown that automation of ASCS Offices is being successfully accomplished. Staff enthusiasm has been shown to be high, as is their ability to use the equipment and program applications. Based on this assessment and other evaluation criteria, we are proceeding with the "nationwide' phase of this project and will begin implementation on August 5, 1985. This should be completed by June 1986.

Question: Will these computers be on-line with the Kansas City facility?

Answer: The State and County computer systems will have the ability to communicate between themselves and Kansas City. However, the nature of this communication is not based on direct on-line connections. Using the USDA telecommunication facility, DEPNET, communications can be sent from site to site. Data will be transmitted through pre-scheduled queued transmissions from one level to another. While this is not the same as having a direct on-line connection, the Kansas City Computer Center will still receive daily updates of ASCS/CCC accounting records. With alternate system backup mechanisms, data flow should remain smooth and uninterrupted.

Question: How is satellite imagery used in the administration of agency programs.

Answer: Satellite imagery has quickly provided ASCS management with information on the extent and magnitude of weather related disasters over the major agricultural regions of the United States. The effects of droughts, freezes, floods and hail storms have been reported for program crops such as corn, wheat and cotton. The weather information and imagery are constantly watched for the development of conditions that may lead to disasters. Current imagery is compared with imagery from prior crop years to give timely/current assessment of crop area and yeild prospects and relayed to program economists.

Question: Are ADP costs of maintaining and monitoring the tobacco program borne by tobacco producers, as are the costs of the program itself?

Answer: ADP costs of maintaining and monitoring the tobacco producers. ADP development costs are maintained separately for certain commodities or groups of commodities to include tobacco.

Question: The explanatory notes states that comparability between the system for County and State Offices and the system for Washington and Kansas City Offices was not a requirement in the procurement of the systems. Now you are planning to spend $150,000 on hardware and/or software to make the systems compatible. Would it have not been less expensive to alter delivery times so that they can be developed with compatability?

Answer: The system for State and County Offices and the system for Washington and Kansas City Offices will be fully compatible with respect to data files. The incompatability between the two systems will only exist in regard to word processing. No equipment of the size needed for the State and County Offices would have word processing compatability. The more important data compatability has already been accounted for in our plans.

Question: You have planned a formal program of on-going responsibility for IRM evaluation. Yet you request no funding for it. Why not?

Answer: One objective in the ASCS-IRM Plan highlights an on-going responsibilty for IRM Evaluation. In establishing the Information Resources Management Division, ASCS has included this responsibility as part of its normal duties. Therefore, the on-going IRM evaluation is already being handled by a specific organizational entity through its existing staff and resources. No additonal request for funding is necessary.

Question: Are funds being requested this year for the joint FAS-ASCS computer facility? Please also give the status of this effort.

Answer: Funds for the joint ASCS-FAS computer center have been requested for both FY 1985 and 1986, and will be made available through the Commodity Credit Corporation. Vendor proposals are now being evaluated against detailed specifications of hardware and software needs. Also definition of the joint agency data base designed to provide ready access to foreign and domestic commodity information for program managers and policy officials has begun.

Question: The ADP notes state that two application systems which support management of grain and processed commodity inventories of CCC will be replaced. What improvements will be made in the replacement of these two systems? Will it monitor the amount of unused storage space being leased by CCC? Why are there two separate systems?

Answer: The present systems are batch oriented systems with data stored on computer tapes. The new system will be data base oriented which will provide for faster and more accurate data recordation and information retrieval. The present grain systems was also developed in the 1960's, and the programs have to be run on a dedicated machine that emulates a now obsolete computer. Maintenance of the system is very difficult. There were also some activities that were not previously automated. The most significant ones are sales invoicing and the integration of the inventory system to accounting., The data on unused storage space will be on-line and readily available to ASCS management.

Although some of the same functions are performed in the management of grain and processed commodities, they are handled completely different. The contractors, in developing the systems, did define user requirements for both systems and determined what programs could be shared. Several areas were identified, including some common files and check writing.

Question: Please briefly describe the feasibility study being conducted on local area network installation in Kansas City.

Answer: A survey of current ASCS and FCIC data communications in Kansas City was completed in February by RJO Enterprises, Inc. In the near future, RJO will present ASCS and FCIC management with recommendations for meeting the rapidly expanding Kanasas City local data communications requirements. The typical current configuration requires one or more cable links from each host computer to each supported workstation. This is a cumbersoome, inflexible mode of operation. It is anticipated that RJO will recommend a local area network solution which will initially support four to five hundred workstations, and eventually as many as 800. Workstations on the local area network will have access to all the computers and databases on the system.

OTHER AGENCIES ADP PLANS

Question: The fiscal year 1986 budget proposes to phase out REA by 1990. The ADP explanatory notes show that ADP plans for REA to continue through 1990. If the budget proposal is approved, will procurement plans go forward?

Answer: Yes, REA's procurement will proceed as planned. While we are proposing the phase-out of REA by 1990, REA will still be responsible for servicing and collecting outstanding loan accounts and the planned ADP procurements will improve the efficiency of the operations while reducing staffing levels.

Question: What other ADP designs and procurements will be altered if the President's budget request is approved? For example Farmers Home Administration is scheduled for a $35 million hardware purchase, but the budget request for the Agency would drastically reduce the workload. Please be specific concerning items and amounts.

Answer: The Farmers Home Administration (FmHA) procurement of multifunctional workstations, small business computers, is part of a consolidated Departmental procurement expected to be awarded in September 1985. These systems will connect to the FmHA centralized accounting system, as well as provide local office automation capabilities. The procurement will result in a "requirements type" contract which does not require the purchase of a specific number of units. This will provide maximum flexibility in matching the number of units purchased to the needs of the Agency after the budget has been acted upon.

GENERAL AGRICULTURAL OUTLOOK

STATEMENT OF RANDALL M. RUSSELL, EXECUTIVE ASSISTANT TO THE SECRETARY, FORMER DEPUTY ASSISTANT SECRETARY OF AGRICULTURE FOR ECONOMICS

Mr. Chairman and members of the Committee, I appreciate this opportunity to appear before you to discuss the outlook for agriculture in 1985. Before I go into a detailed discussion of this outlook, I would like to review several events that took place in 1984 and set the stage for continued adjustment for agriculture in 1985. I also will discuss two areas that are critical for the future prosperity of American agriculture--the 1985 Farm Bill and credit conditions in U.S. agriculture.

1984--YEAR IN REVIEW

At this time last year, we had just completed a period of major adjustments in agriculture. The payment-in-kind (PIK) program had been instituted early in 1983 to deal with the record surpluses overhanging the market. In the summer of 1983, the worst drought in nearly 50 years had reduced corn and soybean yields dramatically. Exports had fallen more than 10 percent from record fiscal 1981 levels, reflecting the continued strength of the dollar and large foreign debts.

In 1984, we experienced a year of increased production, lower prices and new financial concerns. With a limited PIK program in place for wheat and less severe weather conditions, U.S. crop production returned to more normal levels. U.S. meat and poultry production remained large, primarily due to beef and broiler output. Dairy output, however, was below year-earlier levels, largely because of new dairy policies that lowered price support levels and offered other incentives to reduce production.

In 1984, we continued to experience problems with foreign markets. With the world economy still under stress, the volume of U.S. agricultural exports dropped another million tons. The high value of the dollar, together with larger foreign production and the lingering difficulties of debtor nations, combined to pressure American exports. Despite the decline in volume, however, export values rose for the first time in 3 years, to $38 billion, as a result of higher 1983 crop prices.

With the lower projected farm incomes, sluggish export demand, high interest rates and a third year of declining farmland values in some regions, problems have intensified for some highly leveraged farmers. Those who counted on the inflation of the 1970's now are under economic stress. Without inflation-based increases in land prices, they find themselves unable to qualify for credit; thus, they face a major readjustment in their farming operations. There are no precise data on the number of farmers in financial trouble or on the extent of their difficulties--although I will try to put the issue into some perspective. All of this puts increased importance on the outlook for 1985.

1985 COMMODITY OUTLOOK

The 1984/85 marketing year apparently will mark the likely return of the global grain market to the surplus supply conditions that characterized the earlier 1980's. In contrast to last year, when the largest year-to-year drop in world grain production in more than 20 years was recorded, farmers this year are bringing in a record crop, almost 10 percent above 1983/84, even with near-record acreage-reduction programs in the United States. The 1984/85 harvest will be large enough to facilitate both record consumption and a substantial rebuilding of global stocks that were cut by more than one-fourth in 1983/84. Projected ending stocks of grain for 1984/85, at about 213 million tons, still fall short of the 1982/83 record stockpile of 253 million.

Perhaps the most striking developments in this year's market are the extraordinary increases in production by China and the European Community (EC). The Chinese achieved a fourth consecutive record grain harvest, 5 percent above last year's excellent crop and nearly 30 percent above 1980/81. Government policies encouraging more of a private enterprise approach to grain production, plus continually favorable weather, have been key to China's success. In the EC, remarkably good weather, larger plantings, and increased use of higher-yielding varieties, particularly of soft wheats, led to an unprecedented 21-percent increase in grain output.

Another important factor this year has been the magnitude of Soviet buying in the world grain market. The USSR harvested a grain crop that apparently was one of the smallest in a decade, then embarked on an import program that should surpass 1981/82's record 46 million tons, and probably will total approximately 50 million tons.

In the United States, the return of more normal weather permitted grain growers to rebound by increasing production nearly 50 percent from 1983/84's low production level. With planted acreage still well below earlier levels, U.S. grain production in 1984/85, at 312 million tons, has fallen short by 6 percent of reaching the 1982/83 record.

Food Grains

Wheat. World wheat production in 1984/85 is expected to be record large for the fifth consecutive year, and will exceed 500 million tons for the first time. The most substantial gains in output occurred in the EC, the United States, China, Eastern Europe, and India. Canada, Australia, and the USSR suffered reduced production because of unfavorable weather.

Although global wheat consumption also is projected to be at a record this year, use again probably will fall short of production and cause the fourth straight increase in year-ending stocks. At the close of 1984/85, global wheat stocks as a percent of utilization are likely to remain at about the 21-percent level experienced the past 2 years.

Global wheat trade probably will grow by about 5 percent from last year's record. The United States appears to be capitalizing on that expansion by increasing its wheat export volume by more than 3 percent from last year's level. The projected volume of 40.1 million tons is the fourth highest on record. The U.S. share of world wheat trade is likely to remain at 37 percent in 1984/85.

With domestic use steady, the increased exports and reduced beginning stocks should help offset a 7-percent increase in production, so U.S. ending stocks of wheat this year should grow only slightly. Prices, however, will not reach last year's average of $3.54 a bushel, and currently are forecast in the $3.35-3.45 range.

Rice. The world rice situation is little changed from last year. Record consumption will nearly offset record production, resulting in a slight stocks buildup. The global stocks-to-use ratio for rice should be about 6 percent, just slightly above the past 2 years.

Global rice trade is declining somewhat from last year when Thailand was able to take advantage of its record production and low prices to export twice as much rice as the United States. U.S. rice exports are down about

10 percent this year and probably will be only about two-thirds of 1980/81's record level. The U.S. share of the world market continues to decline from a high of nearly 30 percent in 1974/75 to less than 20 percent projected for 1984/85. U.S. production has rebounded strongly from last year's PIK-reduced harvest. With production up nearly two-fifths, declining exports, and only a modest expected gain in domestic use, U.S. ending stocks of rice are projected to rise nearly 30 percent this year. As a result, prices have been well below 1983/84's average of $8.76 a cwt and are projected to average in the $8.00-8.60 range--not much above the $8.00 loan rate. As much as 10 percent of the crop is expected to be forfeited to the Commodity Credit Corporation when loans mature this year.

Coarse Grains

Global production of coarse grains--corn, sorghum, barley, oats and rye--is rebounding from last year's 11-percent decline with a projected 15-percent increase to a record 797 million tons in 1984/85. The United States is leading the way, with a 73-percent increase from 1983/84's PIK and drought-reduced crop. Despite an estimated 20-percent drop in Soviet production, foreign coarse grain output is rising slightly this year, due primarily to large gains in China and Europe.

World consumption of coarse grains will be record large, but will fall far enough short of production to permit a sizeable rebuilding of stocks. Global coarse grain carryover, which dropped last year by one-half, should climb about one-fourth by the end of 1984/85. The expected stocks-to-use ratio of 11 percent still is well below 1982/83's 18 percent, but is about in line with the average of the mid-to-late 1970's.

Global coarse grain trade also is rebounding from last year's level, due mainly to a surge in Soviet buying. The Soviets are expected to import a record 24 million tons of coarse grains in 1984/85, and the United States appears to be reclaiming much of its past share of this important market. Also significant this year is the transition of two traditional major importers--China and the EC--from importers to net exporters of coarse grains following major increases in production. While some observers suggest that China will have to return to the importer category within a few years as its livestock industry expands, EC production and trade policies suggest that the

EC's move to the position of a net exporter may be permanent. With the help of the Soviet buying, U.S. corn exports in 1984/85 should exceed 51 million tons--the highest level in 4 years.

Despite the resurgence of exports, a probable 12-percent gain in domestic feed use, and record food and industrial use of corn, U.S. stocks are expected to rise substantially this year due to the 83-percent increase in corn production from 1983's reduced level. Projected 1984/85 corn carryover of 1.1 billion bushels would be more than 50 percent above last year's low level, and would represent a more normal stocks-to-use ratio of 15 percent, compared with last year's 11. With larger available supplies, prices are projected at $2.60-2.75 a bushel compared with last year's average of $3.25.

This year's sorghum crop is estimated at 866 million bushels, a 77-percent increase from 1983. Feed use should rebound this season as sorghum becomes more price competitive with wheat and the number of cattle on feed rises in the Southern Plains. Nevertheless, stocks at the end of the season will be about 40 percent higher, and farm prices are expected to average $2.30-2.45 a bushel.

The U.S. barley supply for 1984/85 is at an all-time high, while the oat supply is one of the smallest on record. Farm prices for barley are expected to average $2.30-2.40 a bushel, down somewhat from last season, while oat prices are expected to be $1.65-1.80 a bushel, up slightly from 1983/84.

Oilseeds

The 1984/85 outlook is dominated by a recovery in supplies for soybeans and other oilseeds following greatly reduced crops in 1983/84, and by slow growth in demand for oilseed meals, particularly outside the United States. Strong demand for soybean oil in a number of key world markets, particularly India, has only partially offset the weakness in protein meal demand. Short supplies of palm oil, which were a strong positive influence on 1983/84 soybean oil use and prices, also are contributing to strong soybean oil use and prices in the first half of 1984/85. However, a substantial recovery in Malaysian palm oil output in late 1984 and projected strong gains in 1985 are expected to weaken world demand and prices for soybean oil later this marketing year.

For all of 1984/85, producer prices for soybeans and other oilseeds are forecast to average about 20 percent below year-earlier levels. Soybean prices are forecast between $5.75-6.45 a bushel compared to the $7.75 average in 1983/84. Most of the drop is due to soybean meal prices, which averaged 40 percent below year-earlier levels in the first quarter of this marketing year, and for the entire year are forecast to average 30 percent below last year. Soybean oil prices may be down only about 5 percent.

The decline in soybean meal prices is sparking a large increase in soybean meal use in the United States, where a 15-percent rise was recorded in the first quarter as many users took advantage of the lower prices to replenish inventories. Gains in soybean meal use in the United States for the rest of the year are expected to continue, but by less than the first quarter's inflated gains due to inventory rebuilding, with the full-year gain estimated to increase 8 percent.

In other major markets, a strong dollar has largely offset U.S. market price declines, resulting in only slightly lower prices for foreign buyers. With weak economic recovery in these countries as well, soybean meal use is not expected to increase significantly. Combined with larger competitor supplies, U.S. exports of soybeans and meal are expected to show a small decline from from 1983/84 levels.

Livestock, Poultry and Dairy

Beef. Liquidation of the U.S. cattle inventory continued in 1984. Cow slaughter was up 13 percent from the previous year as producers sent more of their breeding stock to market. Increased dairy cow slaughter, particularly early in the year, contributed to a larger total cow slaughter. But the majority of the increase came from beef herds. Contributing to the large beef cow slaughter have been poor returns to cow-calf operations, droughts in some parts of the country, and financial conditions in much of the agriculture sector.

Cattle feeding activity was up in 1984, and declining feed costs raised returns for cattle feeders. Feeding, which was down sharply in the Corn Belt where corn supplies were low during much of the year, was up in the Plains region where wheat supplies were plentiful and favorably priced for feeding. The number of cattle on feed was up at the beginning of 1985. Tighter feeder cattle supplies could hold placements of cattle on feed slightly below year-earlier levels. But with lower feed prices, placements of cattle on feed probably will be relatively large during most of this year. Fed cattle marketings for 1985 may exceed the 1984 level, resulting in an increase in fed beef output. Cow slaughter is expected to decline as returns increase for cow-calf operators. The amount by which cow slaughter declines will depend on forage conditions, producer returns, and the general financial condition of the farm sector. Total beef production should decline in 1985, particularly after the early months, as lower nonfed output more than offsets a larger production of fed beef.

Cattle prices were up in 1984 and further increases are anticipated for this year. Choice slaughter steer prices averaged about $3 a cwt higher in 1984 than in 1983. Feeder cattle prices also rose, but the increase was not as much as that for slaughter steers. Fed cattle prices will be under the pressure of large fed cattle supplies early this year, but they should increase later in the year as beef production declines. Lower pork output will be positive for cattle prices, but a larger broiler production will help hold prices down. With a tightening of the feeder cattle supply, feeder cattle prices in 1985 probably will increase more than fed cattle prices. Lower feed costs also will help strengthen feeder cattle prices. Retail beef prices held relatively steady in 1984, averaging less than 1 percent above the year-earlier level. Reduced output of beef and pork probably will help boost retail beef prices slightly this year.

Pork. Pork producers, reacting to low hog prices relative to feed costs in 1983, and early 1984, reduced pork output last year. Production remained above the year-earlier level during the first quarter, but dropped below during the rest of the year. For the year, production was down 3 percent. Even with higher returns in the latter months of 1984, the hogs and pigs inventory remains below year-earlier levels. Also, producers indicated in December that they planned to farrow fewer sows during the next 6 months than they did a year earlier. If producers carry through with these intentions, it will mean a year-over-year decline in pork production throughout 1985. For all of 1985, pork production may decline around 3 percent.

Last year hog prices averaged a little above the 1983 level. With lower red meat production in 1985, hog prices should increase further. Price gains, however, will be moderated by large broiler supplies. Retail pork prices averaged slightly below the year-earlier level in 1984, but as pork supplies are reduced again this year, prices probably will rise.

Poultry. Despite high feed costs during much of the year, broiler producers had high returns in 1984. Strong broiler demand kept prices up and output increased about 5 percent. Demand remains relatively strong and prices are holding at levels that will stimulate further increases in production. Lower feed costs and favorable broiler prices should result in good producer returns again this year.

In 1984, turkey production held near the 1983 level. This level of output combined with strong demand to result in higher turkey prices. During the fourth quarter of 1984, lower feed costs and higher turkey prices resulted in favorable returns for turkey producers. Production is expected to increase in 1985, but a good demand for turkeys likely will keep prices at relatively favorable levels for producers.

Egg prices fluctuated widely in 1984. Reduced production and concern over avian flu early in the year resulted in record high egg prices. Producers responded to the higher egg prices and by the spring, egg production was above year-earlier levels. The increased production resulted in a sharp decline in egg prices. Prices remained under the pressure of larger supplies through the rest of the year and producer returns were squeezed. Egg production in 1985 is expected to be up from 1984 because of a larger laying flock and more eggs per hen from a younger flock. The higher output probably will keep prices under pressure most of the year.

Dairy. Milk production for 1983/84 totaled 137.4 billion pounds, down 1 percent from the previous year. The number of milk cows declined and output per cow was up only slightly. CCC net purchases under the milk price support program totaled 10.4 billion pounds (milk equivalent, milkfat basis), down from 16.6 billion the previous year.

Milk production is expected to rebound when the Dairy Diversion Program ends in March. Producers appear to be holding heifers for increased production as the number of milk replacement heifers per 100 dairy cows on January 1, 1985 was a record 44 for the beginning of the year. In addition, output per cow, which has been below year-earlier levels during the program, is likely to increase and offset the lower number of cows. Also, a large number of replacement heifers will enter the milking herd this year. Milk production for 1984/85 may be down slightly, but the decline is likely to occur in the first half of the year. Commercial use probably will continue to improve. Net purchases by the Commodity Credit Corporation are expected to decline from the 1983/84 level, but the decline is likely to occur during the diversion program.

Cotton

The most dramatic development in the cotton world centers on China. As recently as 1979/80, China was a major importer, taking 4.1 million bales--more than 2 million from the United States--to help supply its growing textile industry. However, since 1979/80, China has more than doubled its production to an estimated 26 million bales this season and now is self-sufficient. Chinese mill use during 1984/85 is estimated at 16.5 million bales, which means China has a tremendous surplus of cotton. Although quality and marketing problems are limiting exports, shipments are increasing rapidly and may total about 1.2 million bales this season. The implications for longer-term U.S. cotton exports are not encouraging.

Record world production of 81.8 million bales in 1984/85 is exceeding consumption of 69.8 million, resulting in nearly a 12-million-bale buildup in stocks from last season's level of 24.5 million. Larger crops in China and the United States account for most of the increase in global production and stocks.

Despite China's large export potential, 1984/85 U.S. cotton export prospects are relatively bright. Tight early season supplies in some exporting countries, coupled with reduced crops in the Soviet Union and Egypt, may enable U.S. exports to nearly equal last season's 6.8 million bales. However, foreign competition is expected to increase later in the season, likely holding U.S. exports to the 6.5-million-bale level.

Sugar

The 1984/85 season will mark the fourth consecutive year in which world sugar production has matched or exceeded consumption, resulting in a substantial buildup in stocks and low prices. Production is estimated at 97.5 million tons, up about 2 million from last season. Sugar use may total about

96.1 million tons in 1984/85, compared with 95.6 million last season. Global stocks total slightly more than 40 million tons, equal to 5 months' consumption. These stocks have caused prices to plummet to the current level of about 3-4 cents a pound in the world market. However, as a result of import quotas, U.S. prices are averaging about 21 cents.

Although overall U.S. per capita sweetener consumption has remained relatively constant over the past decade, use of sugar has declined dramatically. Increased use of lower-priced high fructose corn syrup (HFCS) is responsible. Since 1970, HFCS use jumped from virtually zero to about 36 pounds a person in 1984, while sugar use declined from more than 100 pounds a person to 67.5.

Fruits and Vegetables

February 1 prospects indicated a 1984/85 citrus crop of 10.3 million tons, down 7 percent from January 1 prospects, and 3 percent less than last year. The hard freeze on January 21-22 resulted in substantial damage to citrus and vegetables in large areas of Florida. Temperatures in Ocala, at the northern edge of the citrus belt, dropped to as low as 9 degrees. Significant ice was found in cut fruit as far south as Vero Beach--an area which escaped damage in the December 1983 freeze.

The February 1 forecast for U.S. orange production, excluding Texas, was 161 million boxes, down 8 percent from January 1, and 5 percent less than last season. Severe damage has been reported from the January freeze with much of the unharvested crop destroyed. About 25 percent of the crop had been harvested prior to the hard freeze. Grapefruit production is forecast at 49.8 million boxes, near last season's level. Lemon production in Arizona and California is expected to total 25.8 million boxes, down slightly from January prospects, but 21 percent more than the 1983/84 crop.

Supplies of noncitrus will likely be smaller during 1984/85, primarily reflecting smaller crops of grapes and winter pears. Reduced shipments have left cold storage holdings of apples moderately above a year ago, however. The small supplies and rising demand should keep retail prices firm for most fresh and processed fruit. Increased supplies of commercial vegetables, potatoes and pulses will put downward pressure on 1985 prices. Based on 1984 production, the 1985 supply of processed vegetables, potatoes and dry edible beans are forecast to be higher through the first two quarters. Also, strong 1984 prices for fresh vegetables suggest that growers will increase plantings in 1985.

Increased production of dry edible beans and continued slack export demand is depressing farm prices. The average U.S. grower price for dry edible beans in December was $18.10 a cwt, down $6.20 from a year earlier.

1985 FARM ECONOMIC INDICATORS

The economic performance of the farm sector in calendar 1985 is expected to continue sluggish as nominal net cash income remains near the 1984 level. As a result, land values could remain soft, and machinery sales probably will continue weak. In 1985, net cash income, which is a measure of the dollar income farmers actually receive in a calendar year, is forecast to range from $31-36 billion, compared with the $34-38 billion expected for 1984.

Direct Government payments (which mainly consist of deficiency payments and diversion payments) are forecast to fall to $4-7 billion in 1985 following the $7-8 billion total expected for 1984. With the ending of PIK disbursements, all of 1985's direct Government payments will consist of cash disbursements. These lower Government payments, in combination with a small rise in cash expenses, are likely to outweigh larger receipts from crop and livestock marketings, prompting the forecast for a slight decline in current dollar net cash income.

In 1985, much of the increase in crop receipts will be due to expected larger marketings from the 1984 and 1985 crops. This follows 2 years of reduced marketings in 1983 and 1984 caused by reduced production in 1983. Assuming no widespread weather problems in 1985, crop output could rise slightly, but with somewhat stronger exports and feed use, farm inventories would not change dramatically. Given that inventory change is likely to play a minor role in 1985, net farm income--which measures income generated from a given calendar year's production adjusted for inventory change--probably will fall within a range of $19-24 billion. This compares with the $29-33 billion expected for 1984 and $16.1 billion for 1983.

In 1985, continued moderation in prices farmers pay for production inputs, combined with roughly unchanged input use, is likely to lead to a 1-5 percent increase in farm cash expenses. With depreciation, the largest single expense category, expected to decline, total farm production expenses (cash expenses plus noncash items) probably will rise 1-4 percent in 1985. Expenses for inputs originating on farms, such as feed and feeder cattle, and for manufactured inputs, such as fertilizer and pesticides, are expected to rise 2-4 percent. Meanwhile, other cash operating expenses are expected to rise only slightly, mainly because of the tapering-off of the deductions levied on milk marketings. Interest expenses, which now make up an average 20 percent of a producer's out-of-pocket expenses, probably also will rise only slightly as average debt burdens are reduced and average interest rates remain near or fall below those of 1984.

Farmland Values Decline for Third Consecutive Year

Land values peaked in 1981 after three decades of uninterrupted increases. In all but a handful of States, land values rose more than 30 percent during the inflationary 1978-81 period, adding $243 billion to landowners' assets.

With lower expected returns to agriculture and a reduction in the inflation rate, farm real estate values declined about 7 percent nationally between early 1981 and mid-1984. Although values have increased in some areas, in the Corn Belt and Lake States land values have declined quite sharply. In Iowa, for instance, net cash returns in 1984 averaged $125-175 an acre, compared to $200 in the late 1970's. Land prices have dropped from about $1,900 an acre in the late 1970's to about $1,400 today. In Nebraska, land values have declined from about $660 in 1980 to less than $500 in 1984, and they still appear to be declining.

A decline in real estate value has led to reduced equity and cash flow difficulties for many existing farmers. At the same time, lower farmland values or rental rates have helped those who want to get started in farming.

Farm Debt Slows

After several years of rapid increases, total farm debt is forecast to remain unchanged at around $210 billion in 1985. Relatively high real interest rates, reduced equity, the need to conserve cash flow and lower inflation rates will dampen borrowing for the next few years. Rapidly rising land values and low real interest rates led many producers to expand their operations in the 1970's; in contrast, the 1980's seem likely to be characterized by financial conservatism. Farmers and lenders probably will continue to attempt to reduce their financial risk.

Although it has become more difficult for farmers to qualify for credit, money is available. Farm lenders are paying close attention to the condition of the farmer's financial statements before providing any new credit, however.

Farm Equity Down Slightly

Farm sector equity again will decline very slightly in 1985, falling to about $805 billion. The debt/asset ratio is expected to be about 21 percent on January 1, 1986, which should equal 1984's level. While the nearly 21-percent debt/asset ratio is higher than in recent years, it still is somewhat lower than nearly the 25-percent debt/asset ratio average for non-farm, non-corporate businesses. But the comparatively low farm industry average disguises the difficulties that some individuals--those with debt/asset values of 70 percent or more--are facing in certain areas of the United States.

Export Values Likely to Decline

After reversing a 2-year decline in fiscal 1984, the value of U.S. agricultural exports is expected to drop from $38 to $35.5 billion in fiscal 1985. Lower prices will offset anticipated increases in the volume of grains and cause our export values to fall. A strong dollar will continue to limit exports, as will larger foreign production and new competitors, such as the EC in feed grains. The strong U.S. dollar also will lend to increases in imports, now forecast to rise marginally from fiscal 1984's record $19.1 billion. Thus, the agricultural trade surplus is likely to fall to about $16.0 billion, nearly $3 billion below last year's level.

Food Prices Continue to Rise Moderately

Retail food prices rose more than 3 percent in 1984, compared to 2 percent in 1983. This was the sixth consecutive year in which retail food prices rose less than the Consumer Price Index. These small increases are a result of low farm prices and a general reduction in inflation which has held down labor, processing, and other food manufacturing and distribution costs. Costs for fuel and power rose only slightly more than 1 percent. While prices for most energy sources remained steady, electricity rates increased about 5 percent.

If food prices had gone up as much as the general rate of inflation in the last 5 years, consumers would have spent about $50 billion more for food last year. Moreover, the average consumer in most other countries in the world spends well over 20 percent of disposable income on food and beverages, while the average American consumer spends only about 15 percent--less than the proportion spent 10 years ago.

The general economic and farm sector outlook suggests that food prices may increase about 2-5 percent in 1985. Nearly all the increase is likely to be due to a rise in the farm-to-retail price spread, consisting of costs of food processing and distribution. Marketing charges account for two-thirds of expenditures for food in grocery stores and have been the main cause of rising food prices over recent years. Farm prices of food commodities in 1985 are likely to average slightly below last year's level.

AGRICULTURAL CREDIT

In the late 1970's, many farmers borrowed heavily to finance annual production costs, new capital equipment and increasingly expensive land. Cash receipts from agricultural production could not cover the cash flow needed for such purchases. But as long as land prices were rising rapidly, farmers were able to borrow against rising asset values to cover cash-flow shortfalls, debt repayment and crop failures. Because inflation was well above interest rates, borrowing costs were for some years negative, and lenders were willing to loan even more than requested. But this growing debt rollover became unsustainable after 1981 when global markets declined and commodity prices fell. The agricultural sector in 1981 began to face the bitter realities of squeezing the inflation of the 1970's out of the economy. It became apparent that the trends of the 1970's--that is, rising demand, prices and land values--were not going to be the trends for the rest of the 1980's and probably beyond.

Beginning in 1981, high real interest rates, dramatically lower inflation rates and weak commodity prices associated with weak exports combined to halt increases in asset values, particularly land and machinery values. Asset values have declined about 10 percent since 1981 and now are just over $1 trillion. But land prices have dropped to 1977 levels in some Corn Belt and North Central States, and some who started farming or purchased land after 1977 have debt/asset ratios of more than 100 percent on that land. Many farmers discovered that they no longer could finance an inadequate cash flow by borrowing. At the same time, the cash flow required to service existing debts increased as interest rates remained high.

The result of this cash-flow squeeze has been played out over several years. Initially expecting a return to the three-decade-old trend of rising land prices, farmers used their equity to borrow new operating funds. But the farm financial problem became more and more apparent as land prices continued to fall, and more and more farmers exhausted their remaining equity. As a result, some producers and financial institutions are having financial difficulties.

Financial analysts generally agree that farms with debts equal to 40 percent or more of asset values face problems in making principal and interest payments, and that those with debt/asset ratios of more than 70 percent are likely to be under extreme stress. Often, however, these guidelines do not apply to very small or very large farms. Most small farms--those with less than $50,000 in annual sales--receive more income from off-farm sources than from the farm enterprises. They often borrow against farm assets for nonfarm purposes, and repay the loans with nonfarm income. So it is difficult to say whether a small farm with a high debt/asset ratio is in trouble or not, without examining each individual case.

A significant proportion of very large farms--those with more than $500,000 in annual sales--normally are highly leveraged. But they often are specialized, such as vineyards, nurseries, orchards, or vegetable farms, that operate in a different environment from field crop enterprises--and often carry large debt/asset ratios. Thus, these very large farms are less likely to be in financial difficulty than the statistics might suggest.

The family-size commercial farm generally falls in the middle, with sales of $40,000-500,000 annually. In 1983, this sales class included approximately 679,000 farms, accounting for about 27 percent of all farms. Of these, an estimated 114,000 have debt/asset ratios of 40-70 percent; an additional 64,000 have debts of more than 70 percent of their assets. Some in the latter group, perhaps as many as half, technically are insolvent. Altogether, the 178,000 middle-size farms with serious-to-extreme financial problems constitute less than 8 percent of all farms, but account for nearly 18 percent of all output. Although some farms are under stress in all regions, the largest numbers are concentrated in the Mountain and Lake States and Northern Plains.

The situation continues to worsen as commodity prices remain weak, interest rates remain high, and land values continue to decline in key farming areas. We expect to see increasing proportions of farmers with financial problems, continued declines in farm asset values, increasing proportions of debt in trouble, and increasing problems of lender distress.

The question is: what steps, if any, should the Federal Government take to alleviate these problems. Last September 18, President Reagan announced a plan for restructuring farm debt. The program contains four provisions:

- The Farmers Home Administration will, on a case-by-case basis, defer up to 25 percent of the principal, to a limit of $200,000, and interest payments owed by selected farmers for up to 5 years.
- Federal guarantees of $650 million are being made available to private farm lenders who agree to write off 10 percent of farm debt owed in selected problem farm situations.
- Experts from local communities are being asked to help farmers develop financial and production management plans.
- FmHA is contracting out some routine paperwork to private banks and other financial institutions to reduce backlogs.

The debt restructuring plan that was announced last September gave many farmers a chance to put together a stable financial future. The plan has been well received by Farmers Home Administration borrowers. More than 100,000 current FmHA borrowers have applied for loan restructurings under the plan. However, the portion of the program designed to help other troubled borrowers is not being utilized by private banks and other commercial lenders to its fullest advantage. The additional initiatives announced February 6 by Secretary Block will enhance the effectiveness of the program announced last September. The initiatives included:

- Create a Farm Credit Coordinating Group, chaired by the Secretary of Agriculture. The group will include the Chairman of the Federal Deposit Insurance Corporation, the Comptroller of the Currency, the Assistant Secretary of Treasury for Domestic Finance, the Governor of the Farm Credit Administration, the Under Secretary of Agriculture for Small Community and Rural Development and, as an observer, the Vice Chairman of the Federal Reserve Board. The group will coordinate activities of the Federal and financial regulatory agencies having responsibilities for dealing with the current farm problems.

- Create an emergency credit assistance program. FmHA guarantees of up to 90 percent on operating loans would be made to eligible producers previously served by failed lending institutions. They would be applicable to new crop loans on a 1-year basis. Eligibility would be limited to producers with substandard loans who can meet a cash flow test on new credit extensions. The assuming institutions may write loans under a quick certification procedure to be established by emergency regulations.
- The Department of the Treasury will work with the FDIC, the Comptroller of the Currency and the Federal Reserve to implement a policy to avoid supervisory actions that may discourage banks from exercising forbearance or from working with farmers and small business borrowers who are experiencing temporary difficulties in meeting their debt service obligations.

Even with these initiatives, the Government cannot stop the direction of the adjustments now taking place in the agricultural sector, but it can minimize the pain of the adjustments. Economic forces have dictated that asset values must decline, if the sector is to remain competitive. Land prices cannot be set at values that do not reflect expected cash returns. Even if the Government were to make efforts that went way beyond the September credit initiative, such actions would fall short of the mark and would not make up for the $100-billion decrease in asset values since 1981.

The Farmers Home Administration already is the lender of last resort, extending credit to those farmers who cannot obtain credit elsewhere. On January 1, 1985, FmHA held about 9 percent of farm real estate debt, and about 15 percent of farm operating and other debt. FmHA has stayed with 98 percent of its borrowers. As a result, on June 30, 1984, 35 percent of active FmHA farm borrowers were delinquent. Of the $25 billion in FmHA farm loans outstanding, more than $5.4 billion were delinquent. Most of the delinquent debt was for emergency disaster and economic emergency loans, which were extended in the late 1970's in an attempt to help some farmers stay in business.

Pouring more money into FmHA programs is not the answer. Those producers facing severe financial problems might be helped for a year or two if more FmHA funding were made available, but most probably would leave agriculture eventually despite FmHA funding. In the meantime, the budget deficit would be aggravated by the larger levels of additional Government spending. The increased spending would put further pressure on interest rates paid by all farmers, and would help keep the U.S. dollar at a relatively high level, making our exports less competitive in world markets. Thus, again, a well-intentioned attempt to help some producers would be likely to not only fail to accomplish its goal, but could adversely affect all our farmers and agribusinesses.

1985 FARM BILL

If agriculture is to remain a dynamic sector of the American economy, adjustment must continue in 1986 and beyond, as conditions warrant. Opinions differ about the role of the Government in modifying these adjustments, however, and this has raised the level of interest in the 1985 Farm Bill.

In 1984, we initiated a process that generated a record amount of debate and interest in the 1985 Farm Bill. At listening sessions around the country, USDA officials heard hundreds of persons and received thousands of pages of testimony.

People at these hearings reminded us time and again that we have witnessed a tremendous change in agriculture over the past 50 years, and we have not had the proper tools to deal with the situation. We have been playing catch up--chasing a rapidly changing agriculture with the same outdated farm programs developed in the 1930's and 1940's. And now, with declining exports and prices and rising costs, we have reached the point at which we no longer can continue.

Agricultural policy is at a crossroads. There is a desperate need for an agricultural policy that is flexible, consistent and long-term in design. Agriculture, by its very nature, is subject to inherent volatility and uncertainty. Many of the factors that significantly affect agriculture are out of anyone's control and beyond the reach of farm policy. Thus, the public should support some reasonable level of income protection for the farm sector to insure a continous, adequate and wholesome supply of food and fiber.

As a consequence, there is a continued need for a Government role in agriculture. However, if Government is to play a role, it must first acknowledge its responsibility in shouldering some of the blame and burden for the problems that continue to face agriculture.

At earlier hearings, the Joint Economic Committee permitted a distinguished group of past Secretaries of Agriculture to testify. They all suggested the need for change. Let's listen to the wisdom from two of them, one a Republican and one a Democrat.

Earl Butz said, "What we have been doing obviously doesn't work. Farm income can never be enhanced and rural welfare can never be achieved, in the long run, through a program of restriction, of rising unit costs, of market withdrawal, of expanded Governmental controls."

Bob Bergland said, "The farm programs with which we are familiar generally are rooted in the 1930's, based on a notion that all farms are alike. . . that's not the world in which we live any longer; we have seen a complete change in the structure of American agriculture, primarily since 1945."

The real era of change in agriculture is probably just beginning. Many believe that even greater developments lie ahead--farmers and ranchers using ever more sophisticated production and marketing techniques, becoming even more efficient and more productive. For example, seed treatments now being tested in the Pacific Northwest may increase wheat yields 30-40 percent; growth hormones produced from the new genetic engineering technology may increase production per dairy cow by as much as 40 percent with virtually no increase in feed. Likewise, a new high-yielding, semi-dwarf variety of long-grain rice is boosting yields by as much as 40 percent--because of its ability to withstand lodging caused by excess water or winds. And these are but a few examples.

With this outlook, the Government must take the lead in instituting more effective and responsive programs and policies. At this time, I would like to share with you the goals and objectives that are the basis for the Administration's 1985 Farm Bill.

o Long-Term Agricultural Policy: The 1985 Farm Bill must be based on the longer term prospects for U.S. agriculture. It should focus on creating a policy environment in which the full potential of U.S. agriculture can be realized. Today's agriculture requires long-term capital commitments which realistically cannot be made in the absence of a relatively stable and certain farm policy environment. Agriculture faces enough uncertainties without injecting persistent policy shifts.

o Market Oriented: Agricultural legislation must be designed so most farmers can respond to the market, rathern than to artificial price levels maintained by Government acquisition of commodities. Loan rates and target prices must be tied to market price movements and the Government must be eliminated as a market alternative. Government still would provide price and income support, but not through the physical acquisition of commodities.

- Enhance U.S. Competitiveness: The legislation should not compromise the competitiveness of U.S. agriculture. U.S. agriculture possesses a basic comparative advantage to the rest of the world in the production and delivery of many agricultural products. New legislation should not constrain that basic advantage by artificially raising prices above world market levels, thereby forfeiting markets to less efficient producers. Nor should it remain silent with respect to policies of other countries which attempt to offset our basic advantage through the use of subsidies or barriers to entry. If our domestic policies are to foster the competitive advantage, then our international trade policy must be consistent with that goal.
- Orderly Transition: The legislation should provide for an orderly transition period from current programs to the more market-oriented provisions. There must be a recognition that Government, through actions such as the Soviet grain embargo, has been a root cause of some of the problems that agriculture faces today. Therefore, any new agricultural legislation must contain a transition program, where price and income supports become market-oriented over a period of 3-5 years.
- Equity: For the first time, agricultural legislation should be fair and equitable to every producer. At the end of the orderly transition period, producers should be put on an equal footing since, after 5 years, all commodities should be treated alike and provided the same relative level of price And income support.
- Budget Restraint: The new legislation must provide fiscal restraint. The budget deficit and the corresponding impacts on economic growth, interest and exchange rates have had a devastating effect on sectors such as agriculture. In many cases, these impacts have been far greater than any farm policy decisions. It is in the best interest of farmers and the

nation to implement an effective means of controlling budget outlays. It is imperative we develop effective agricultural legislation that recognizes the need to reduce farm program expenditures.

I believe it is the Federal Government's responsibility to provide leadership in charting a new course for agriculture--a path that is market-oriented, yet provides a compassionate transition period until the sector makes the necessary adjustments. It is the responsibility of the Federal Government to provide a more long-term, consistent agricultural policy that farmers can depend on year after year; one that ebbs and flows with the market, allowing adjustments to be made. It also is the Government's responsibility to challenge our competitors rather than aid and abet them, and to address difficult and important issues such as soil and water erosion, in a direct but reasonable manner.

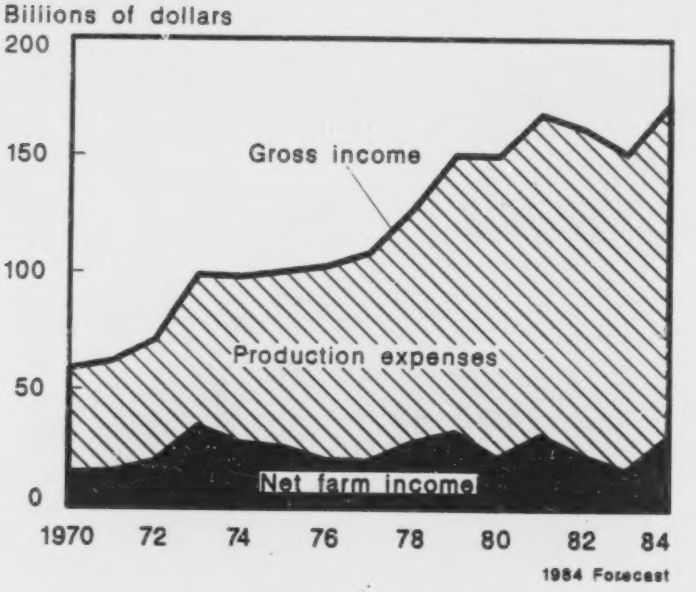
The legislation USDA has forwarded to Congress addresses all of these issues. But if we do not achieve a timely resolution, neither farmers nor the Nation will be well served and all will suffer. Mr. Chairman, we will need the help of every member of this subcommittee and every man and woman elected to this Congress to meet the needs of American agriculture today.

1986 AND BEYOND

This is going to be an extremely tough but important year. We must not let emotions or short-term views keep us from getting agriculture back on track with a reduced budget, more fairness in our taxes, a more responsive farm policy, and a trade policy that challenges unfair trade practices. These are policy changes that will provide for long-term prosperity in the agricultural sector. We must never lose sight of these major goals that are so crucial to agriculture's survival.

Thank you, Mr. Chairman. I will be happy to answer any questions.

Aggregate Farm Income

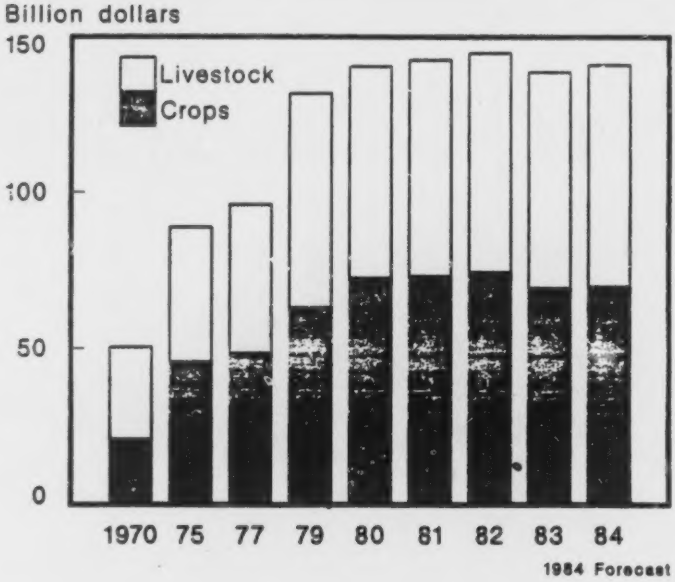


Net Farm Income 1/

Item	1970	1975	1980	1981	1982	1983	1984 2/
	- - - Billion dollars - - -						
Gross income	58.8	100.6	150.2	167.9	161.8	151.4	171-175
Expenses	44.5	75.0	128.9	136.9	139.5	135.3	141-143
Net farm income	14.4	25.6	21.2	31.0	22.3	16.1	29-33

1/ Calendar year.
2/ Forecast.

Cash Receipts from Marketings

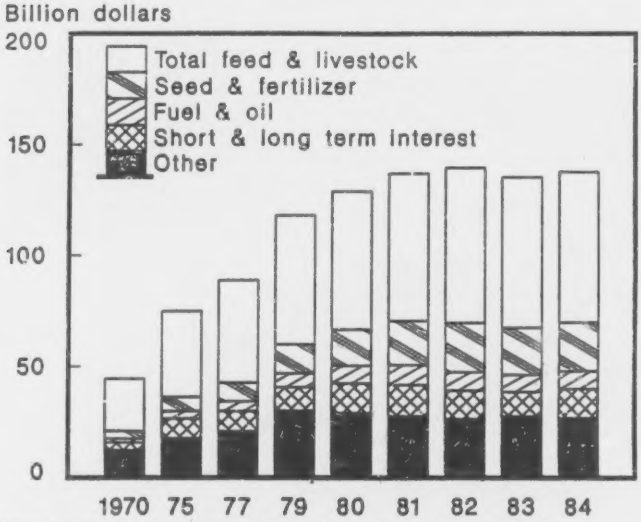


Cash Receipts from Farm Marketings 1/

Item	1970	1975	1980	1981	1982	1983	1984 2/
			- - - Billion dollars - - -				
Livestock	29.5	43.1	67.8	69.2	70.1	69.2	70-74
Crops	21.0	45.8	72.7	73.3	74.6	69.5	68-72
Total	50.5	88.9	140.5	142.6	144.8	138.7	139-143

1/ Calendar year.
2/ Forecast.

Farm Production Expenses



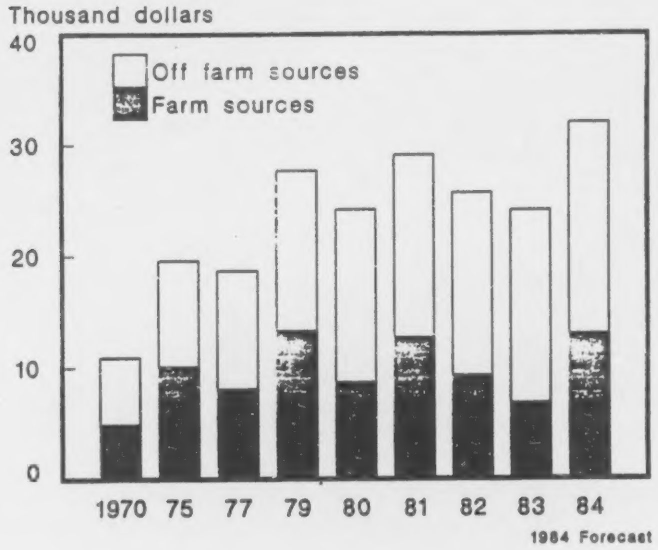
Other includes depreciation, taxes and rent, labor and repair, and all others.

Farm Production Expenses

Item	1970	1975	1980	1981	1982	1983	1984 2/
			- - - Billion dollars - - -				
Feed and livestock purchased, total	12.4	17.9	29.2	27.8	26.5	27.8	26-28
Seed & fertilizer, total	3.4	8.8	13.3	14.0	12.8	10.9	12-14
Fertilizer (ex. lime)	2.3	6.5	9.5	9.6	8.5	7.1	7-9
Fuels and oils	1.7	3.3	7.9	8.9	8.3	7.7	7-9
Short & long term interest	3.4	6.4	16.3	19.9	22.2	21.2	21-23
Taxes and rent	4.6	7.2	8.8	9.1	9.2	8.3	8-10
Depreciation	6.9	12.4	21.4	23.4	23.6	23.1	21-23
Other 1/	12.1	19.0	32.0	33.8	36.9	36.3	38-40
Total production expenses	44.5	75.0	128.9	136.9	139.5	135.3	141-143

1/ Other expenses includes hired labor, repair and all other expenses.
2/ Forecast.

Income per Farm

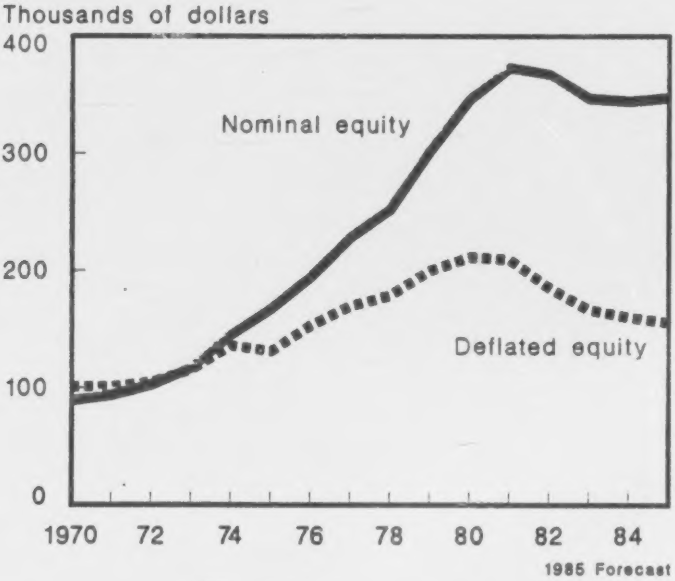


Income Per Farm, All Sources

Item	1970	1975	1977	1979	1980	1981	1982	1983	1984 1/
	---Thousand Dollars---								
Income per farm:									
Farm sources	4.9	10.1	8.1	13.3	8.7	12.7	9.3	6.8	12.4-14.1
Off-farm sources	6.0	9.5	10.6	14.5	15.5	16.4	16.4	17.3	17.6-19.3
Total	10.9	19.6	18.7	27.7	24.2	29.1	25.7	24.1	30.3-33.4
Percent off-farm	55.0	48.5	56.7	52.3	64.0	56.4	63.8	71.8	58.2

1/ Forecast.

Equity per Farm

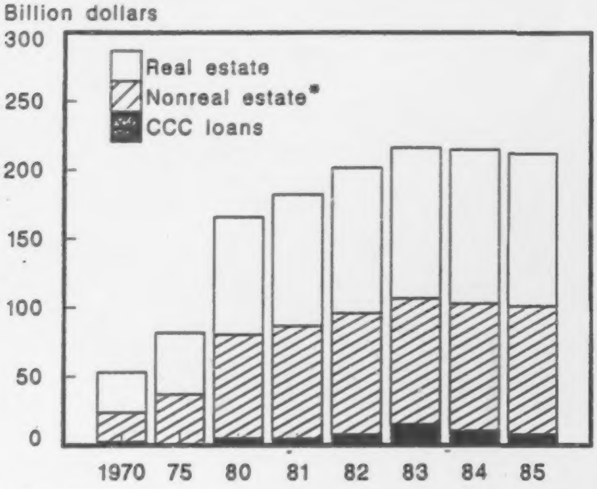


Farm Balance Sheet

Item	1970	1975	1980	1981	1982	1983	1984 2/	1985 3/
				---Billion dollars---				
Assets (Jan. 1)	314.9	502.6	1,005.5	1,089.8	1,083.3	1,048.8	1,031.1	1,022.4
Real estate	215.8	359.7	755.9	828.4	818.9	772.5	764.5	749.2
Other	99.1	142.9	249.6	261.4	264.4	276.3	266.6	273.2
Liabilities	53.0	81.6	165.8	182.0	201.7	216.3	214.7	212.1
Real estate	29.2	44.6	85.4	95.5	105.5	109.5	111.6	110.9
Other	23.8	37.0	80.4	86.4	96.1	106.8	103.1	101.2
Equity	261.9	421.0	839.7	907.8	881.6	832.5	816.4	810.7
				---Dollars---				
(Current Dollars)								
Nominal equity per farm	88,810	166,997	345,852	372,973	367,349	346,845	344,444	347,552
Real equity per farm 1/	100,588	130,888	211,252	209,166	185,223	166,484	159,953	155,539

1/ Deflated by the GNP implicit deflator for the previous year.
2/ Preliminary.
3/ Forecast.

Composition of U.S. Farm Debt



* Excluding CCC loans.

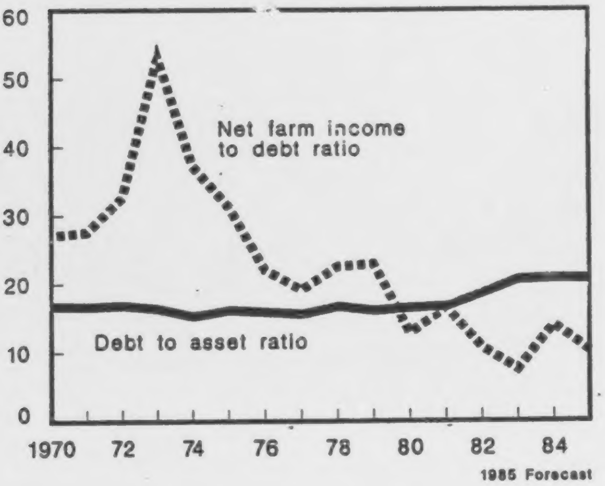
1984/85 Forecast

Total U.S. Farm Debt

Item	1970	1975	1980	1981	1982	1983	1984	1985 1/
	- - - Billion dollars - - -							
Farm debt outstanding on Jan. 1								
Real estate	29.2	44.6	85.4	95.5	105.6	109.5	111.6	110.9
Nonreal estate (excluding CCC loans)	21.2	36.7	75.3	81.5	88.1	91.4	92.2	93.0
Commodity Credit Corporation loans	2.7	0.3	5.1	5.0	8.0	15.4	10.8	8.3
Total farm debt	53.0	81.6	165.8	182.0	201.7	216.3	214.7	212.1

1/ Forecast.

Selected Financial Ratios

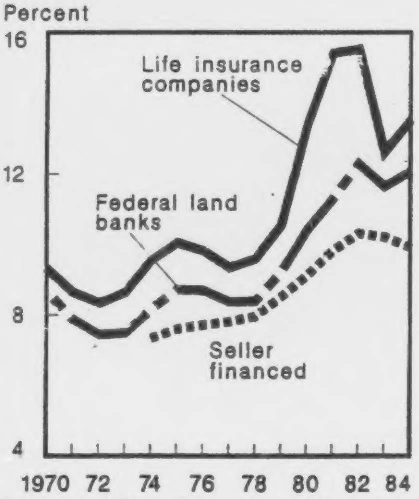


Selected Financial Ratios

Ratio	1970	1975	1980	1981	1982	1983	1984	1985 2/
Debt to asset ratio	16.8	16.2	16.5	16.7	18.6	20.6	20.8	20.7
Net farm income to debt ratio	27.1	31.3	12.8	16.2	10.7	7.5	13.6-15.5	9.0-11.3
Prices received to prices paid ratio 1/	109	113	97	93	85	84	87	83

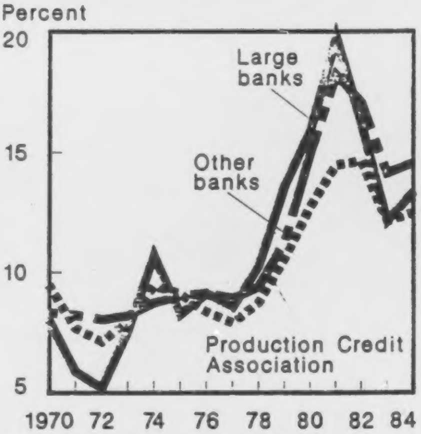
1/ 1977 = 100.
2/ Forecast.

Interest Rates on Farm Real Estate Loans



Federal Land Bank rates do not include charge for the stock borrowers are required to buy.

Interest Rates on Farm Nonreal Estate Loans



Rates on PCA loans include service fees. Bank data starting in 1977 are from surveys made by the Federal Reserve System; data for prior years relate to different groupings of banks, collected by the Federal Reserve System and the Federal Reserve Bank of Minneapolis.

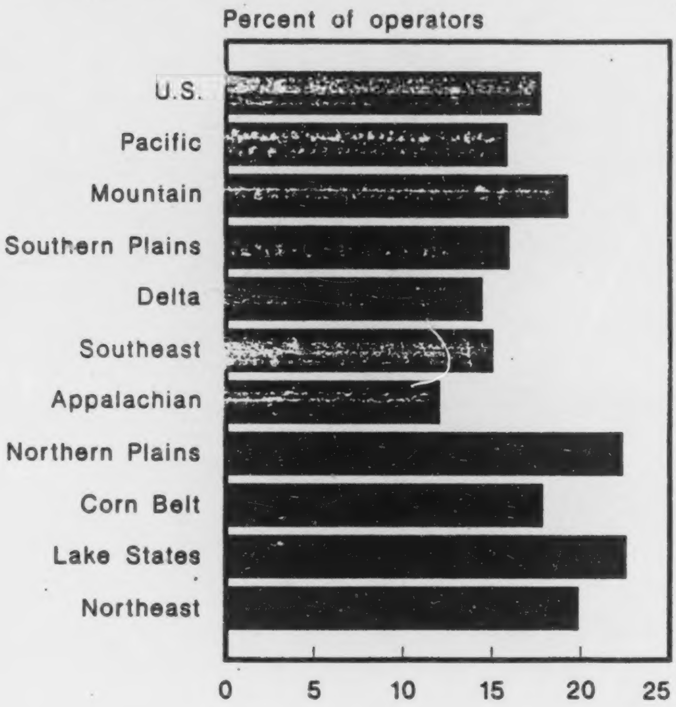
Yearly Average Interest Rates on New Farm Loans*

Item	1970	1975	1980	1981	1982	1983	Preliminary 1984
Nonreal estate	8.59	8.80	14.53	17.48	15.96	12.80	13.45
Production Credit Assn.	9.45	9.11	12.74	14.46	14.63	12.13	12.47
Large banks	8.00	8.25	15.90	19.78	16.20	12.13	13.33
Other banks	8.32	9.04	14.95	18.20	17.05	14.13	14.55
Real estate	9.00	8.78	10.95	11.85	12.84	11.48	11.82
Seller financed	NA	7.59	9.10 1/	9.80 1/	10.30 1/	10.20 1/	9.90
Federal land banks	8.68	8.70	10.39	11.27	12.27	11.63	12.06
Life insurance companies	9.31	10.03	13.35	15.42	15.53	12.60	13.50

*Arithmetic average, not weighted.

1/ First quarter reading only.

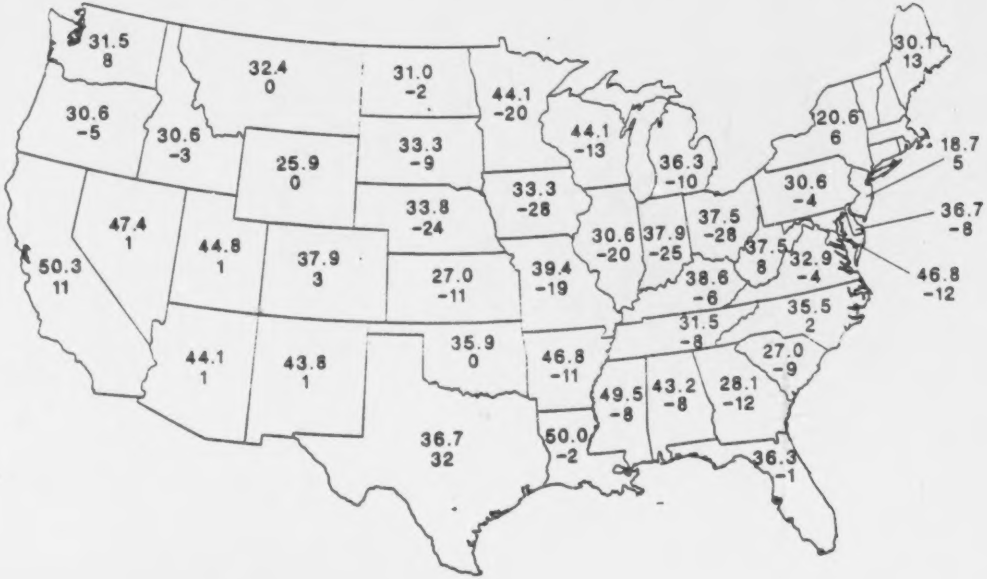
Operators With Debt Ratios of 40% or Higher, January 1, 1984



Operators With Debt Ratios of 40 Percent or Higher
- January 1, 1984 -
Percent of Operators

Northeast	:	19.8	: Delta	:	14.4
Lake States	:	22.5	: Southern Plains	:	15.9
Corn Belt	:	17.8	: Mountain	:	19.2
Northern Plains	:	22.3	: Pacific	:	15.8
Appalachian	:	12.0	: United States	:	17.7
Southeast	:	15.0	:	:	

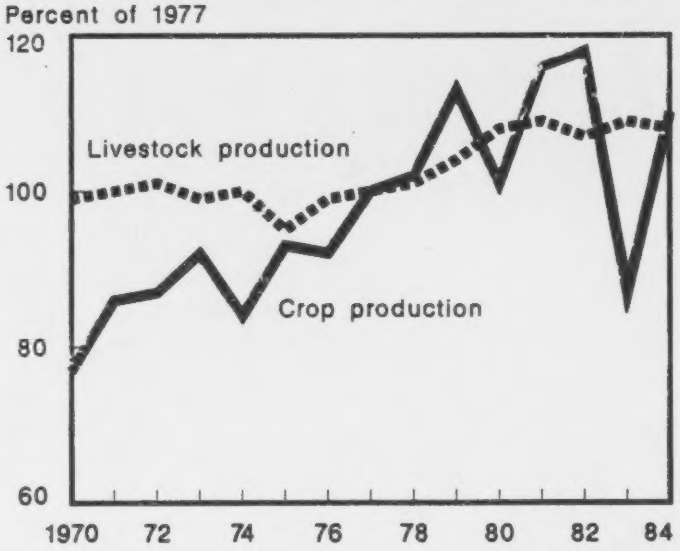
Percent Change in Average Value of Farm Real Estate per Acre, February 1977 - April 1984


31.5
8
30.6
-5
50.3
11
30.6
-3
47.4
1
32.4
0
25.9
0
44.8
1
37.9
3
44.1
1
43.8
1
31.0
-2
33.3
-9
33.8
-24
27.0
-11
35.9
0
36.7
32
44.1
-20
33.3
-28
39.4
-19
46.8
-11
50.0
-2
44.1
-13
30.6
-20
49.5
-8
36.3
-10
37.9
-25
37.5
-28
38.6
-6
31.5
-8
43.2
-8
37.5
8
32.9
-4
35.5
2
27.0
-9
28.1
-12
36.3
-1
30.6
-4
20.6
6
30.1
13
18.7
5
36.7
-8
46.8
-12

Top number - changes from 1977 to 1981
Bottom number - changes from 1981 to 1984

Note: Based on Index numbers of average value per acre. Base=1981.

U.S. Crop and Livestock Production

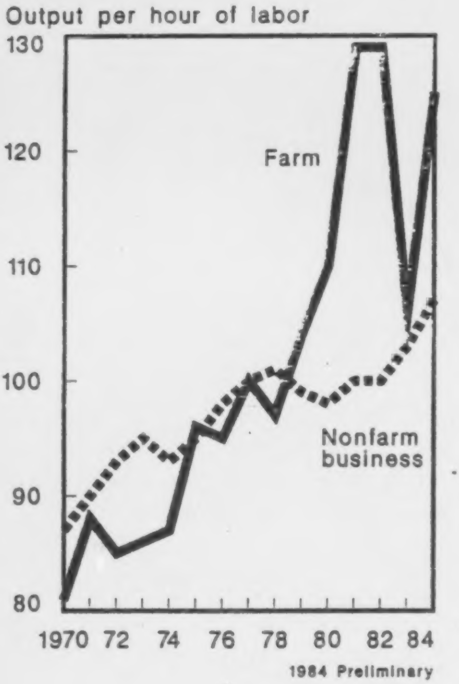


1984 Preliminary

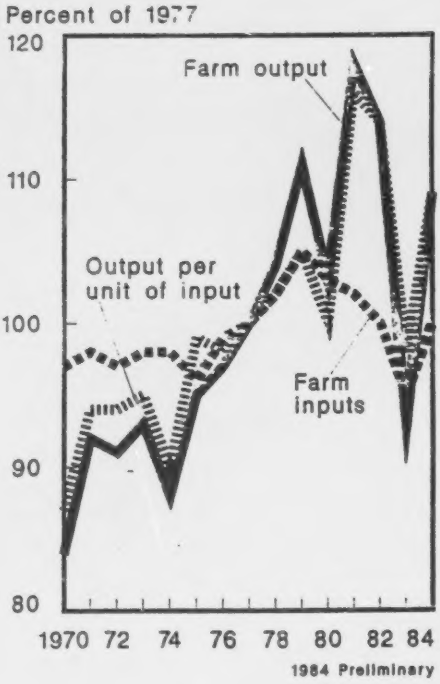
U.S. Crop and Livestock Production

Item	1970	1975	1980	1981	1982	1983	1984
			- - - Percent of 1977 - - -				
Farm output	84	95	103	118	114	93	108
Crops	77	93	101	116	118	87	110
Livestock	99	95	108	109	107	109	108

Farm Output and Productivity



Farm Productivity

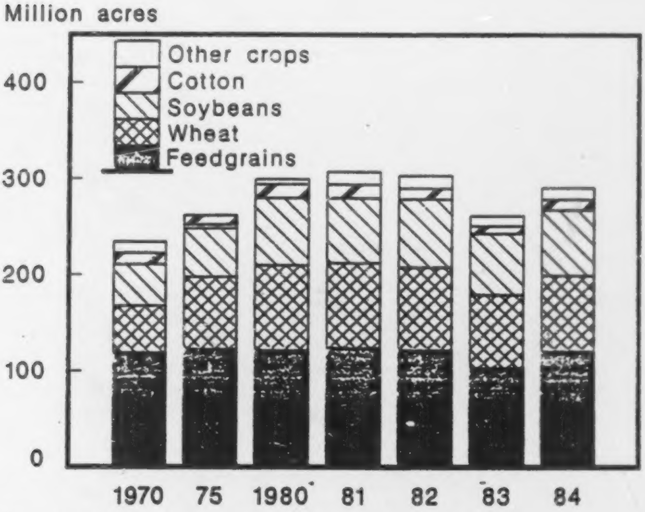


Farm Output and Productivity

Item	1970	1975	1980	1981	1982	1983	1984 1/
			- - - Percent of 1977 - - -				
Farm output	84	95	103	113	114	93	109
Crop	77	93	101	116	118	87	110
Livestock	99	95	108	109	107	109	108
Farm inputs	97	96	103	102	100	95	100
Output per man-hour:							
Farm	81	96	110	129	129	106	125
Nonfarm business	87	95	98	100	100	103	107

1/ Preliminary.

U.S. Planted Acreage



Other includes rice, sunflowers, rye, flaxseed, dry edible beans, sugarbeets, and sugarcane.

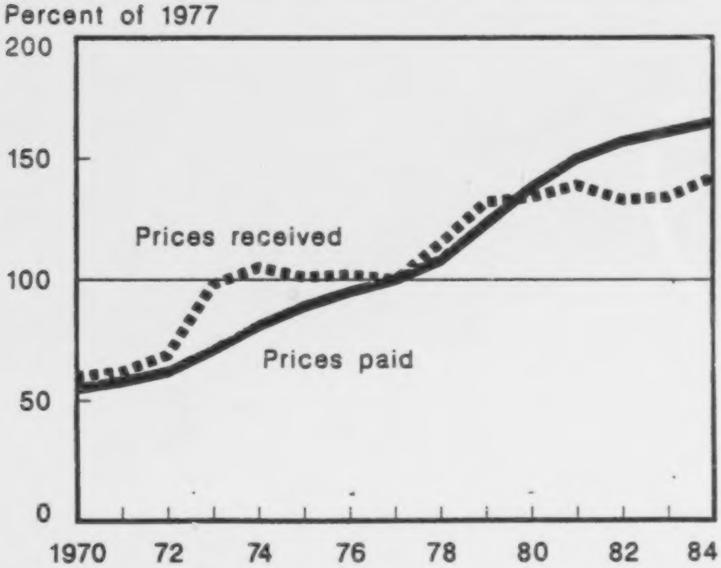
U.S. Planted Acreage

Item	1970	1975	1980	1981	1982	1983 1/	1984
	---Million acres---						
Feed grains	118.8	122.6	121.3	123.6	121.4	102.6	120.2
Wheat	48.7	74.9	80.8	88.3	86.2	76.4	79.2
Soybeans	43.1	54.6	69.9	67.5	70.9	63.8	68.2
Cotton	11.9	9.5	14.5	14.3	11.3	7.9	11.0
Other crops	11.6	10.7	12.7	13.2	13.4	10.5	12.1
Major crop plantings, total 2/	234.1	272.3	299.2	306.9	303.1	261.2	290.7
Set-aside & diverted	53.1	---	---	---	11.1	77.4	30.0

1/ Excludes 9.6 million acres of wheat, barley and oats for conservation use only.

2/ Includes corn, sorghum, barley, oats, wheat, soybeans, cotton, rice, sunflowers, rye, flaxseed, dry edible beans, sugarbeets, and harvested area for rye and sugarcane.

Prices Received and Paid by Farmers



Prices paid includes commodities and services, interest, taxes, and wage rates.

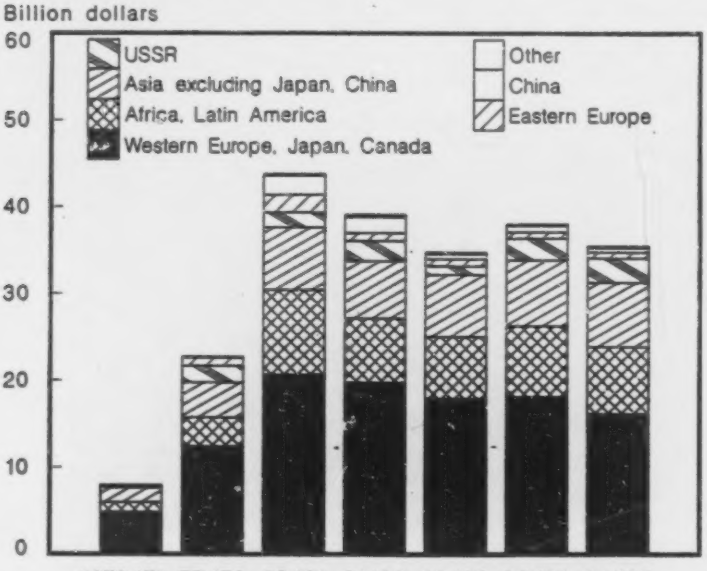
1984 Preliminary

Prices Received and Paid by Farmers

Item	1975	1979	1980	1981	1982	1983	1984
	- - - Percent of 1977 - - -						
Prices received							
(all commodities)	101	132	134	139	133	134	142
Crops	105	116	125	134	121	127	138
Livestock products	98	147	144	143	145	141	145
Prices paid	89	123	138	150	157	161	165
Wage rates	85	117	126	137	144	148	150
Machinery 1/	82	122	136	152	165	174	181
Energy and Fuels	88	137	188	213	210	202	201
Fertilizer	120	108	134	144	144	137	143

1/ Tractors and self-propelled machinery.

U.S. Agricultural Exports: Value by Destination[1]



1/ October-September years.

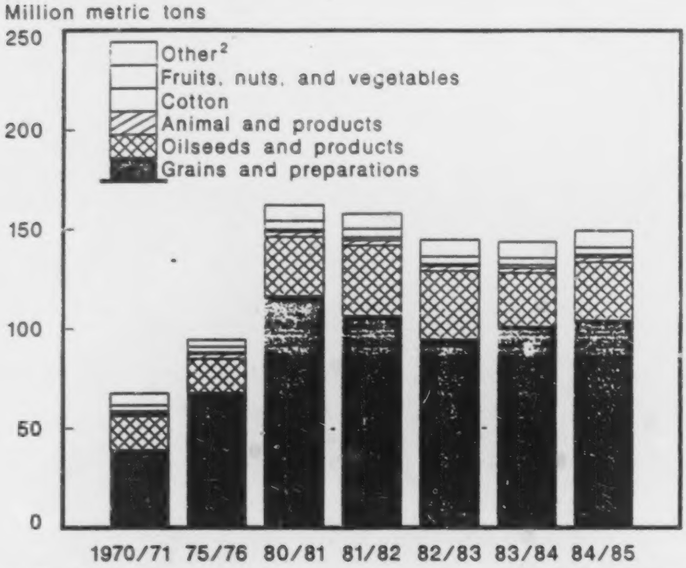
1984/85 Forecast
Forecast based on February data.

U.S. Agricultural Exports: Value by Destination

Destination 1/	1970/71	1975/76	1980/81	1981/82	1982/83	1983/84	1984/85 Estimates
	- - - Billion dollars - - -						
W. Europe, Japan & Canada	4.86	12.45	20.70	19.78	17.91	18.14	15.2
Africa & Latin America	1.12	3.29	9.72	7.38	7.13	8.15	7.7
Asia (excluding Japan & China)	1.63	4.04	7.21	6.58	7.15	7.58	7.4
USSR	0.02	1.90	1.71	2.32	0.98	2.51	2.8
Eastern Europe	0.27	0.92	2.05	0.92	0.83	0.74	0.7
China	---	0.02	2.18	1.82	0.55	0.69	0.5
Other	0.06	0.12	0.21	0.29	0.23	0.22	0.2
Total	7.96	22.74	43.78	39.09	34.78	38.01	35.5

1/ October-September years.

U.S. Agricultural Exports: Volume by Commodity Group[1]



1/ October-September years.
2/ Includes feed and fodders.

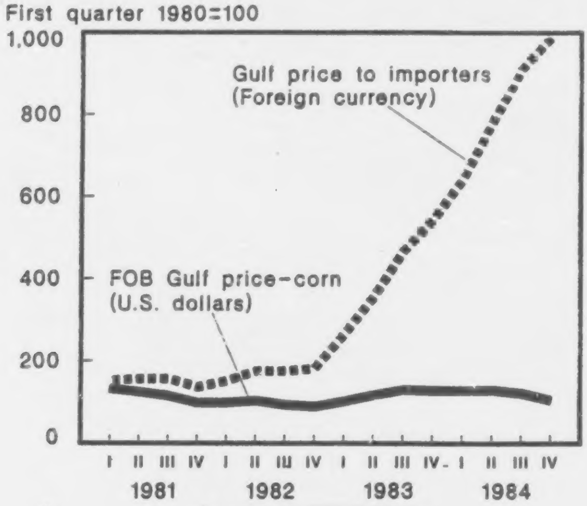
1984/85 Forecast

U.S. Agricultural Exports: Volume by Commodity Group

Commodity group 1/	1970/71	1975/76	1980/81	1981/82	1982/83	1983/84	1984/85 Estimate
	- - - Million metric tons - - -						
Grains & preparations	39.1	68.0	116.6	106.6	94.8	101.2	102.3
Wheat	15.7	29.3	42.2	44.6	36.7	41.7	38.5
Corn	15.2	28.8	59.4	49.5	47.1	47.0	51.4
Sorghum	3.2	5.4	7.7	6.3	5.4	6.2	6.4
Rice	1.8	2.2	3.2	2.9	2.3	2.3	2.0
Oilseeds & products	17.1	17.0	29.8	35.4	34.3	27.0	28.2
Soybeans and products 2/	16.5	15.9	26.9	32.7	31.9	25.0	26.0
Animals & products	1.3	1.4	2.5	2.6	2.5	2.5	2.4
Fruits, nuts, veg.	2.1	2.8	3.9	4.3	3.7	3.5	3.5
Cotton	0.6	0.9	1.2	1.5	1.1	1.5	1.4
Other 3/	1.6	3.4	8.3	7.5	8.4	7.9	7.7
Total	61.2	92.4	162.3	157.9	144.8	143.6	145.5

1/ October-September years. 2/ Export weight; not bean or meal equivalent.
3/ Includes feed and fodders.

Effect of Dollar on U.S. Corn Exports



Effect of Dollar on U.S. Corn Exports

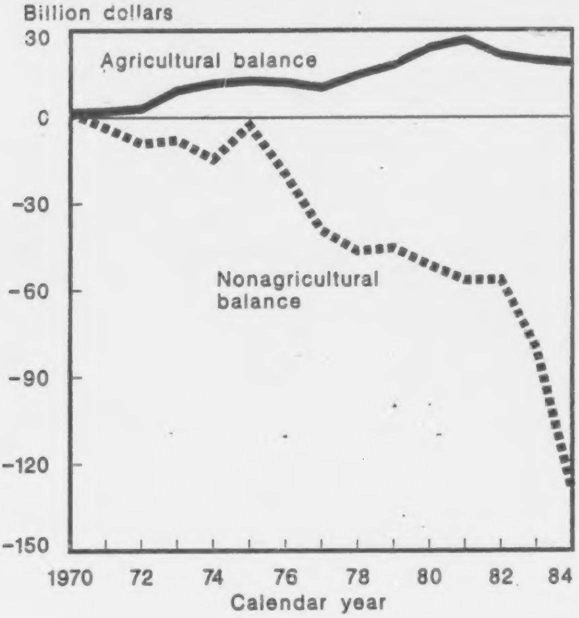
Item	Index of FOB Gulf price corn (U.S. dollar)	Index of trade-weighted exchange rates (corn)	Index of Gulf price to importers in foreign currency
	--- First Quarter 1980 = 100 ---		
1981			
I	132.6	114.5	151.8
II	174.5	125.7	156.5
III	115.2	136.0	156.7
IV	98.5	138.7	136.6
1982			
I	99.0	153.3	151.8
II	103.9	168.9	175.5
III	93.5	188.0	175.8
IV	89.2	204.4	182.3
1983			
I	102.4	259.4	265.6
II	117.8	302.2	356.0
III	130.7	357.0	466.5
IV	128.5	422.0	542.3
1984			
I	128.5	498.2	640.2
II	129.3	604.3	781.4
III	121.5	750.3	911.6
IV	104.9	943.1	989.3

(SB:D6:#31)

Movement of Trade-Weighted Dollar Exchange Rates
(April 1971 = 100)

	1981				1982				1983				1984			
	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV
Wheat	246.7	277.9	312.4	348.8	386.8	446.4	516.3	594.7	794.8	1002.0	1429.0	1844.2	2348.7	3041.6	3999.1	5285.0
Corn	121.6	133.4	144.4	147.3	162.7	179.3	199.6	217.0	275.4	320.9	379.0	447.9	528.6	641.5	796.5	1001.2
Soybeans	85.7	92.7	98.4	95.1	101.0	108.1	117.8	119.6	138.5	141.9	148.1	152.1	155.2	160.2	169.2	177.2
Cotton	126.6	131.0	134.6	134.5	138.2	143.3	146.3	149.0	149.5	155.7	158.6	161.5	181.2	183.4	191.5	196.3
All commodities	122.8	133.3	143.5	147.5	163.1	178.3	198.7	213.8	267.7	317.3	380.6	454.5	541.6	663.8	830.9	1052.7

Agricultural and Nonagricultural Trade Balance

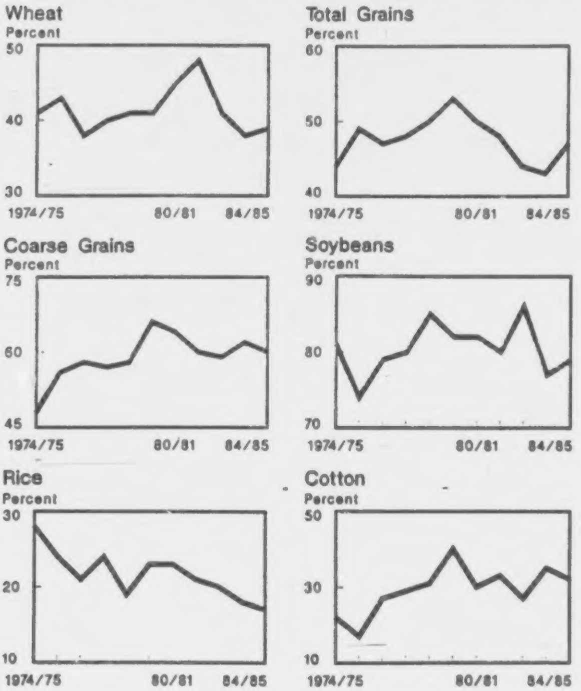


Agricultural and Non-Agricultural Trade Balance
- Calendar Year -

Item	1940	1950	1960	1970	1975	1980	1981	1982	1983	1984 1/
Agricultural										
Exports	.5	2.9	4.8	7.3	21.9	41.3	43.3	36.5	36.1	37.8
Imports	1.3	4.0	3.8	5.8	9.3	17.4	16.8	15.2	16.5	19.3
Balances										
Agricultural	-.8	-1.1	+1.0	+1.5	+12.6	+23.9	+26.6	+21.2	+19.6	+18.5
Nonagricultural	+2.1	+2.5	+4.4	+1.3	-2.9	-51.3	-56.6	-56.4	-80.3	-129.4

1/ Preliminary.

U.S. Exports as Share of World Trade

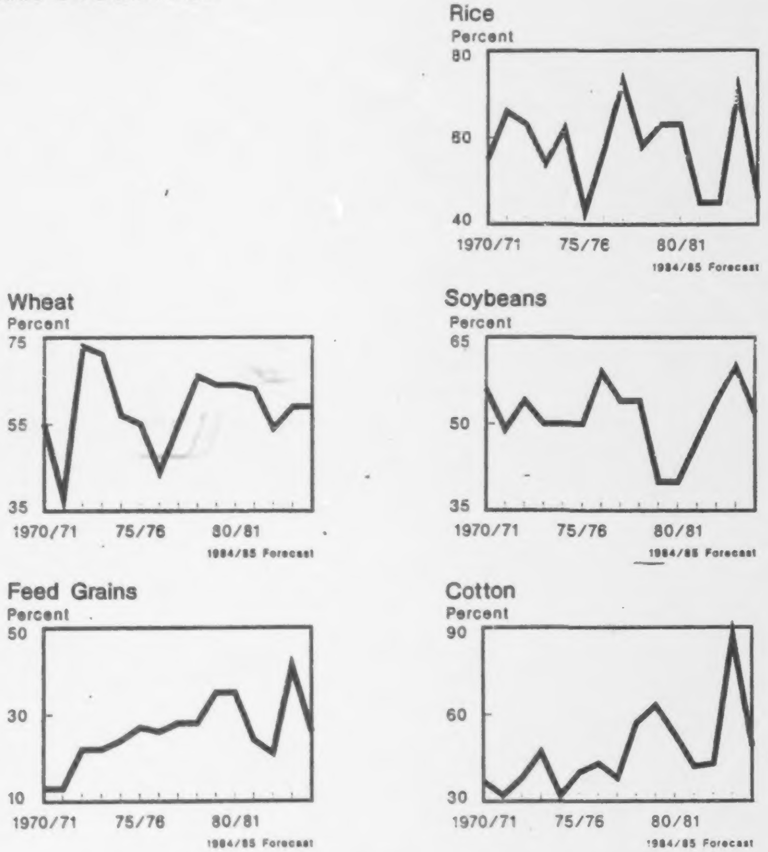


U.S. Exports as Share of World Trade 1/

Item	1970/71	1975/76	1980/81	1981/82	1982/83	1983/84	Forecast 1984/85
				- - - Percent - - -			
Wheat	35	43	45	48	41	38	39
Coarse grains	38	56	64	60	59	62	60
Rice	16	24	23	21	20	18	17
Total grains	35	49	50	48	44	43	47
Soybeans	94	74	82	80	86	77	79
Cotton	22	17	30	33	27	35	32

1/ Wheat and coarse grains, July-June year, rice, calendar year; soybeans, September-August year; cotton, August-July year.

U.S. Exports as a Share of U.S. Production

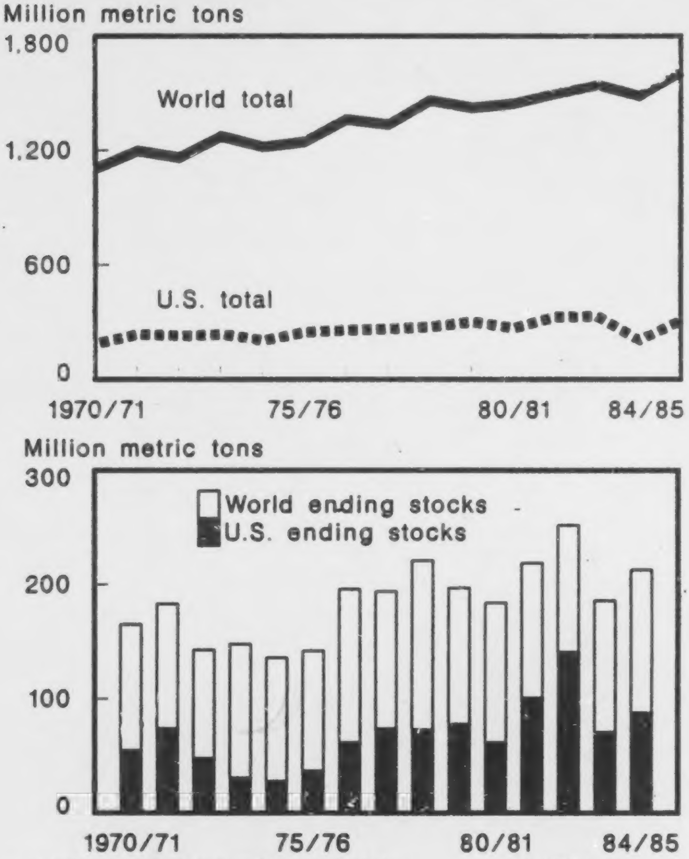


U.S. Exports as a Share of U.S. Production
U.S. Marketing Year 1/

Commodity	1970/71	1975/76	1980/81	1981/82	1982/83	1983/84	Forecast 1984/85
				- - - Percent - - -			
Wheat	55	55	64	63	54	59	59
Feed grains	13	27	35	24	21	41	26
Rice	55	43	63	45	45	71	46
Soybeans 2/	56	50	40	47	54	60	52
Cotton	37	40	53	42	43	87	49

1/ Production is in first year of marketing year.
2/ Exports include soybean equivalent of meal exports.

Grains: World and U.S. Production and Ending Stocks[1]



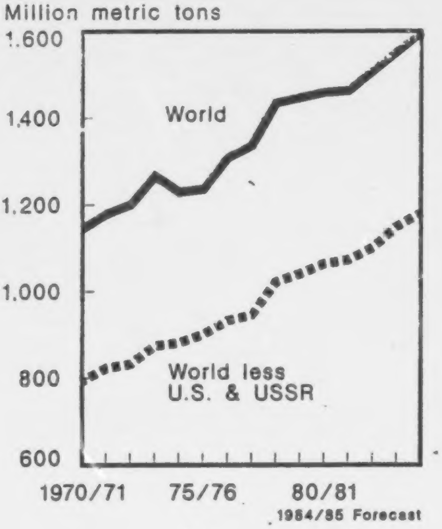
1/ Includes wheat, coarse grains, and milled rice.

1984/85 Forecast

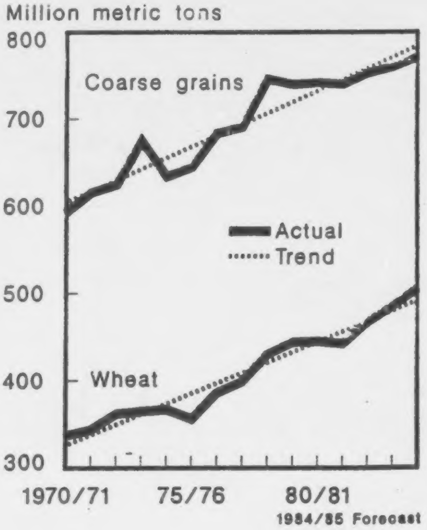
World and U.S. Grain Production and Ending Stocks

	1970/71	1975/76	1980/81	1981/82	1982/83	1983/84	1984/85
	- - - Million Metric Tons - - -						
Production							
World	1,103	1,245	1,446	1,498	1,543	1,486	1,624
U.S.	186	247	268	328	331	206	312
Utilization							
World	1,145	1,236	1,459	1,463	1,509	1,553	1,597
U.S.	164	155	170	180	195	180	156
Ending Stocks							
World	165	142	184	219	253	186	213
U.S.	55	37	62	101	141	71	86
Stocks/Use Ratio							
World	14.4	11.5	12.7	15.0	16.8	12.0	13.3
U.S.	33.5	23.9	36.5	56.1	72.5	39.6	43.5

World Grain Consumption



World Demand for Grains

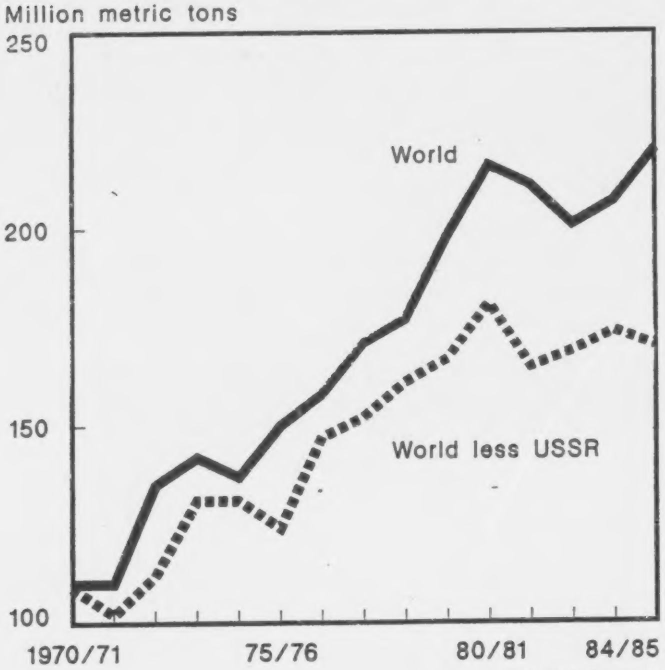


World Grain Consumption

Item	1970/71	1975/76	1980/81	1981/82	1982/83	1983/84	1984/85 1/
				Million metric tons			
Coarse Grains							
World	593	645	742	740	753	760	771
Wheat							
World	337	356	445	442	467	485	505
Total Grains							
World	1,145	1,236	1,459	1,463	1,509	1,553	1,597
U.S.	164	155	170	180	195	180	196
USSR	188	180	225	210	213	222	221
World less U.S., USSR	793	901	1,064	1,073	1,101	1,151	1,180

1/ Forecast.

World Grain Imports



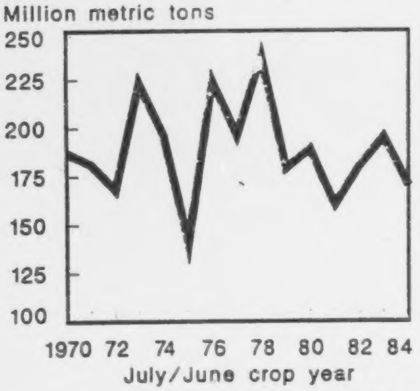
1984/85 Forecast

World Grain Imports

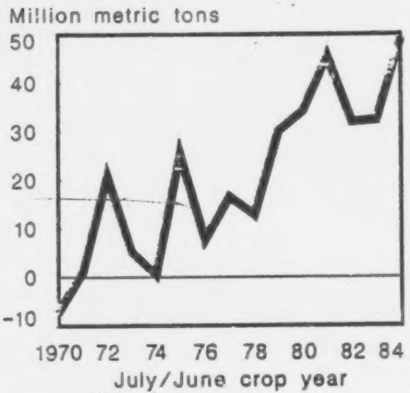
Total Imports 1/	1970/71	1975/76	1980/81	1981/82	1982/83	1983/84	1984/85 2/
	- - - Million metric tons - - -						
World	110	150	216	211	201	207	220
USSR	1	26	35	46	32	33	50
World less USSR	109	124	181	165	169	174	170

1/ July/June marketing year for wheat and coarse grains; calendar year for rice; excludes intra-EC trade.
2/ Projection.

USSR Total Grain Production



USSR Grain Trade-Net Imports

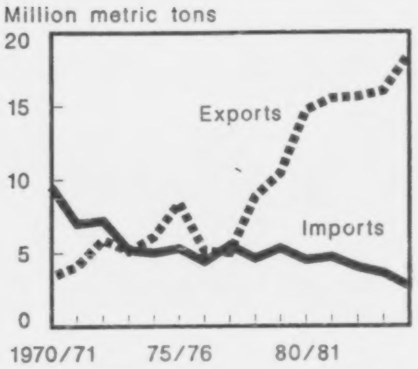


Soviet Grain Supply and Utilization

Year (July-June)	Production	Trade			Availability 1/	Utilization		Stock Change 2/
		Imports		Exports		Feed	Total	
		Total	U.S.					
	- - - Million metric tons - - -							
	Total Grains 3/							
1973/74	223	11.3	7.9	6.1	228	105	214	+14
1974/75	196	5.7	2.3	5.3	196	107	206	-10
1975/76	140	26.1	13.9	0.7	166	89	180	-14
1976/77	224	11.0	7.4	3.3	232	112	221	+11
1977/78	196	18.9	12.5	2.3	213	122	228	-16
1978/79	237	15.6	11.2	2.8	250	125	231	+19
1979/80	179	31.0	15.2	0.8	209	123	222	-13
1980/81 4/	189	34.8	8.0	0.5	223	119	225	-2
1981/82 5/	160	46.0	15.4	0.5	206	116	210	-4
1982/83 5/	180	32.5	6.2	0.5	212	117	213	-1
1983/84 5/	195	32.9	10.4	0.5	227	123	222	+5
1984/85 6/	170	50.0	19.0 7/	1.0	219	123	221	-2
	Wheat							
1973/74	110	4.5	2.7	5.0	109	30	96	+13
1974/75	84	2.5	1.0	4.0	82	34	93	-11
1975/76	66	10.1	4.0	0.5	76	30	87	-11
1976/77	97	4.6	2.9	1.0	100	28	92	+8
1977/78	92	6.6	3.3	1.0	98	44	108	-10
1978/79	121	5.1	2.9	1.5	125	43	107	+18
1979/80	90	12.0	3.9	0.5	102	53	115	-13
1980/81 4/	98	16.0	3.0	0.5	114	48	115	-1
1981/82 5/	80	19.5	6.9	0.5	99	42	102	-3
1982/83 5/	86	20.2	3.0	0.5	106	45	106	0
1983/84 5/	78	20.5	4.5	0.5	98	[illegible]	95	+3
1984/85 6/	75	25.0	6.3 7/	1.0	99	29	99	0
	Coarse Grains							
1973/74	101	6.4	5.2	0.9	106	70	105	+1
1974/75	100	2.7	1.3	1.0	101	68	100	+1
1975/76	66	15.6	9.9	---	81	56	84	-3
1976/77	115	5.7	4.5	2.0	119	78	116	+3
1977/78	93	11.7	9.2	1.0	103	74	109	-5
1978/79	105	10.0	8.3	1.0	114	79	113	+1
1979/80	81	18.4	11.3	---	100	68	100	+2
1980/81 4/	81	18.0	5.0	---	99	67	100	-1
1981/82 5/	72	25.5	8.5	---	98	71	99	-1
1982/83 5/	86	11.3	3.2	---	97	68	98	-1
1983/84 5/	105	11.5	5.5	---	116	82	114	0
1984/85 6/	84	24.0	12.7 7/	---	108	79	110	-2

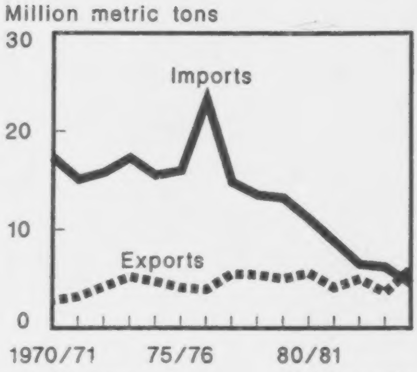
1/ Availability excludes beginning stocks. Totals may not add due to rounding.
2/ Minus indicates withdrawal from stocks.
3/ Total grain production, trade and utilization figures include pulses, paddy rice, buckwheat, and miscellaneous grains, in addition to wheat and coarse grains.
4/ Preliminary for trade, availability, utilization, and stock change.
5/ Preliminary for production, trade, availability, utilization and stocks change.
6/ Forecast.
7/ Accumulated exports and outstanding sales through mid-February 1985.

EC Wheat Trade



1983/84 Preliminary   1984/85 Forecast

EC Coarse Grains Trade



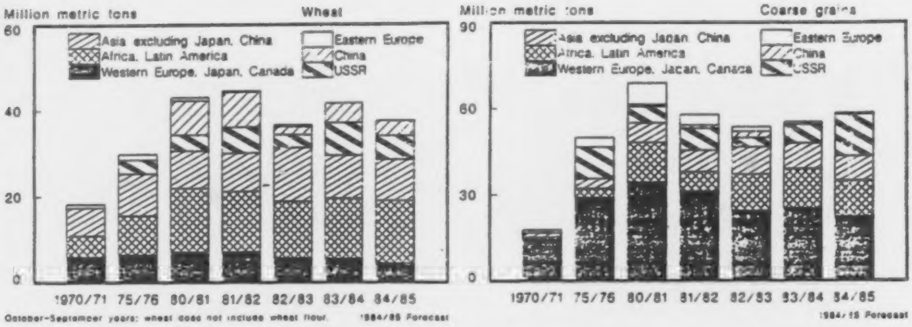
1983/84 Preliminary   1984/85 Forecast

European Community Grains Trade, World Exports,
and EC and U.S. Shares 1/

Item	1971-75 avg.	1980/81	1981/82	1982/83	1983/84	1984/85
	---Million metric tons---					
Total Wheat and Coarse Grains						
EC imports	22.4	15.6	13.5	10.5	9.8	7.3
EC exports	10.5	20.3	19.7	20.6	19.5	24.4
Total world exports	126.4	216.0	210.8	201.4	206.2	218.2
EC share (pct.)	8.3	9.4	9.3	10.2	9.5	11.2
U.S. share (pct.)	50.9	51.3	50.7	47.2	45.9	46.5
Wheat						
EC imports	5.9	4.5	4.7	4.0	3.6	2.7
EC exports	6.2	14.7	15.5	15.6	16.0	18.5
Total world exports	62.5	94.1	101.3	98.6	103.2	107.3
EC share (pct.)	9.9	15.6	15.3	15.8	15.5	17.2
U.S. share (pct.)	44.8	43.8	47.6	41.7	37.7	38.7
Coarse grains						
EC imports	16.5	11.1	8.8	6.5	6.2	4.5
EC exports	4.4	5.6	4.1	5.0	3.6	6.0
Total world exports	63.9	108.8	97.9	91.1	90.7	99.4
EC share (pct.)	6.9	5.1	4.2	5.5	4.0	6.0
U.S. share (pct.)	56.8	63.9	59.9	59.3	61.4	60.4

1/ Total grains includes wheat and coarse grains; excludes intra-EC trade.

U.S. Grain Exports: Volume by Destination



October-September years; wheat does not include wheat flour. 1984/85 Forecast

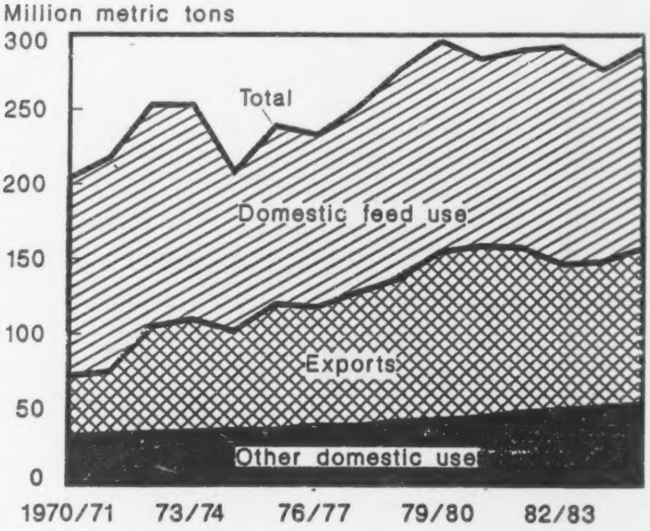
1984/85 Forecast

U.S. Grain Exports, Volume by Destination

Destination 1/	1970/71	1975/76	1980/81	1981/82	1982/83	1983/84	1984/85 2/
				Million metric tons			
Wheat							
W. Eur., Japan & Canada	6.0	6.5	7.2	7.2	5.7	5.6	4-5
Africa & Latin America	4.9	9.1	14.8	14.0	13.1	13.9	14-15
Asia (Excl. Japan & China)	6.5	9.8	8.7	8.9	12.5	10.0	9-10
USSR	---	3.2	3.7	6.0	3.0	7.6	---
China	---	---	8.0	8.2	1.9	4.6	3-4
Eastern Europe	0.8	1.3	0.7	0.3	0.4	---	---
Total 3/	18.2	29.9	43.2	44.6	36.7	41.7	37-39
Coarse grains							
W. Eur., Japan & Canada	14.4	29.1	34.5	31.3	24.5	25.4	22-23
Africa & Latin America	0.9	3.1	13.7	6.7	12.6	13.6	12-13
Asia (Excl. Japan & China)	1.5	3.4	6.8	7.5	9.5	8.9	8-9
USSR	---	11.0	5.7	7.6	3.2	6.5	---
China	---	---	.7	1.1	2.2	---	---
Eastern Europe	1.0	3.3	7.5	3.7	1.6	0.9	0-1
Total 3/	17.8	49.9	69.0	57.9	53.5	55.3	58-60

1/ Year beginning October 1. 2/ Forecast. 3/ Includes small amount of exports to other destinations.

U.S. Grain Disappearance[1]



[1] Feed grains, wheat, rye, and rice.

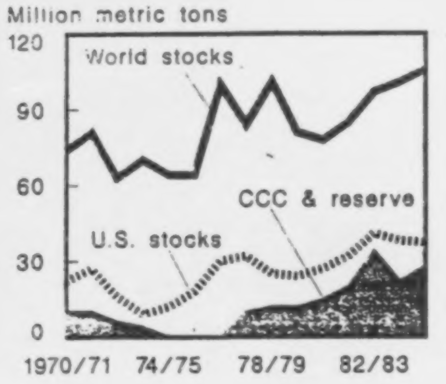
1984/85 Forecast

U.S. Grain Use

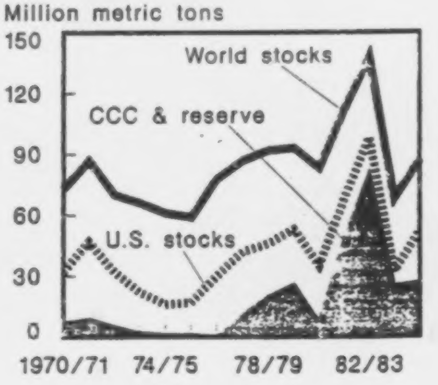
Item	1970/71	1975/76	1980/81	1981/82	1982/83	1983/84	1984/85 1/
	- - - Million metric tons - - -						
Feed Use	132	117	125	132	145	128	142
Other Use	32	36	45	48	50	52	54
Total Domestic	164	155	170	180	195	180	196
Exports	40	84	114	110	97	97	102
Total Use	204	239	284	290	292	277	299

1/ Forecast.

World Wheat Ending Stocks



World Coarse Grain Ending Stocks

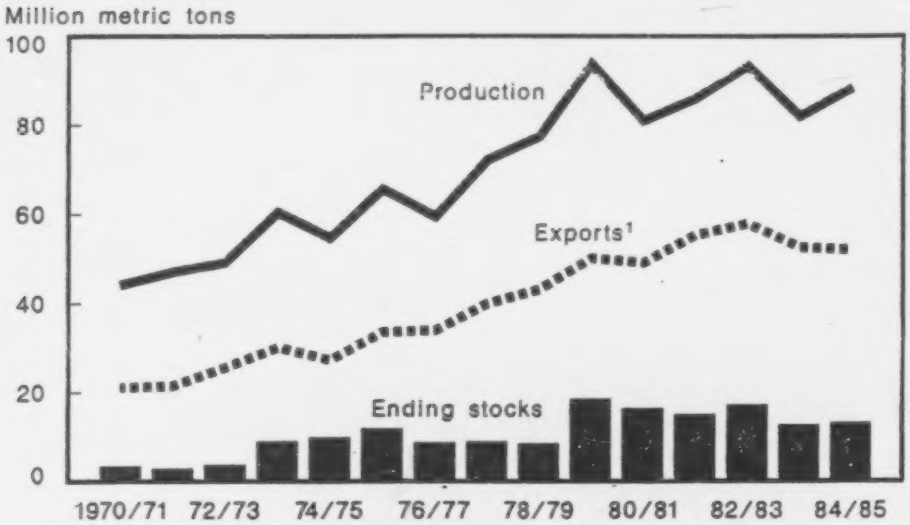


Grain Carryover Stocks and Reserves

Item	1976/77	1978/79	1980/81	1981/82	1982/83	1983/84	Projected 1984/85
	--- Million metric tons ---						
Wheat carryover stocks							
World	100	101	78	85	97	101	109
World less U.S.	70	76	51	53	56	63	71
U.S.	30	25	27	32	41	38	38
Farmer-owned reserve	---	11	10	15	29	17	17
CCC inventory	---	1	5	5	5	5	11
Free	30	13	12	11	7	16	10
Coarse grain carryover stocks							
World	78	92	83	112	139	68	84
World less U.S.	48	46	48	44	41	36	39
U.S.	30	46	35	68	98	32	45
Farmer-owned reserve	---	16	--	40	47	17	18
CCC inventory	---	4	7	9	34	8	10
Free	30	26	28	20	17	7	17
Total grain carryover stocks 1/							
World	195	221	184	219	253	186	213
World less U.S.	134	149	122	117	112	115	127
U.S.	61	72	62	102	141	71	86
Farmer-owned reserve	---	27	15	55	76	34	35
CCC inventory	1	5	12	15	39	14	23
Free	60	40	35	33	26	23	27

1/ Includes wheat, coarse grains, and milled rice.

World Production, Trade, and Stocks of Soybeans



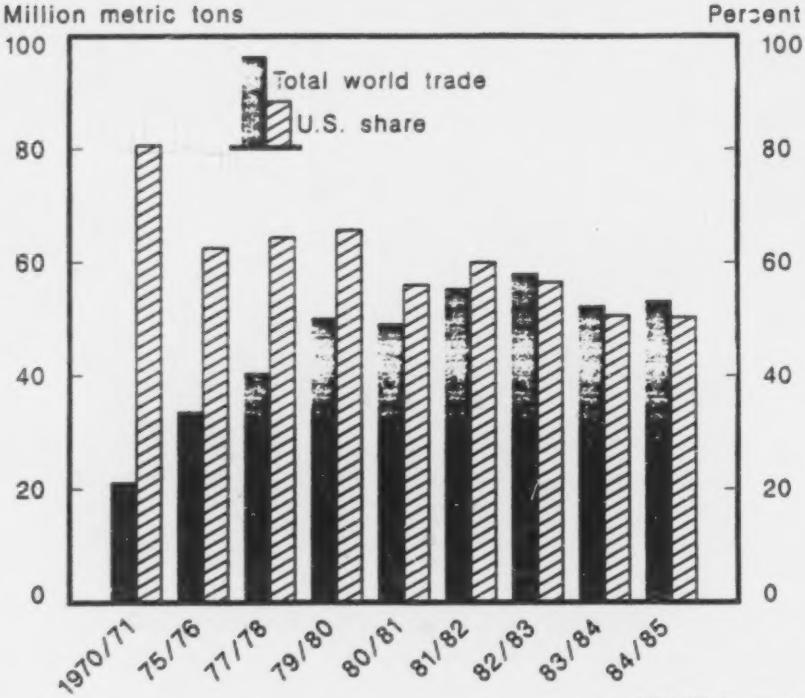
1/ Exports includes soybean equivalent of soybean meal exports.

World Production, Consumption, and Stocks of Soybeans

	1970/71	1975/76	1980/81	1981/82	1982/83	1983/84	1984/85
			- - - Million metric tons - - -				
Production	44.2	65.6	80.9	86.0	93.3	82.0	89.5
Crush	38.8	53.6	71.9	74.3	78.0	72.5	75.4
Exports 1/	21.1	33.6	49.0	55.2	57.9	52.2	52.1
Ending Stocks	3.3	11.7	16.2	14.9	17.1	12.8	14.6

1/ Exports includes soybean equivalent of soybean meal exports.

U.S. Share of World Soybean Trade



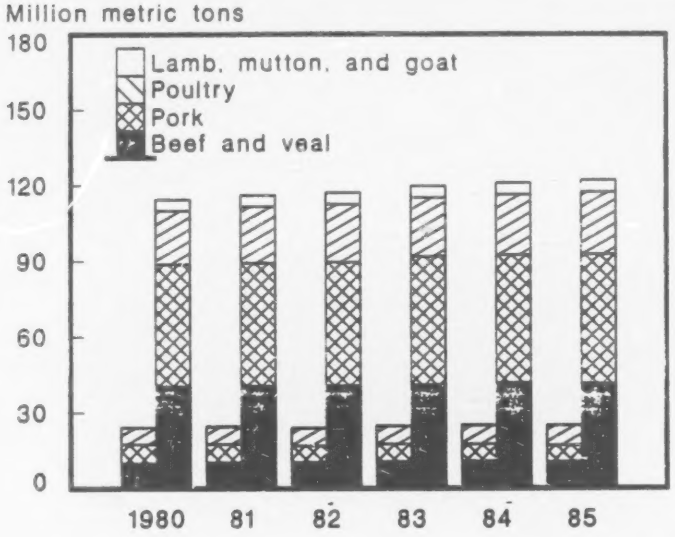
1984/85 Forecast

U.S. Share of World Soybean Trade

Year	World Trade 1/	U.S. Share
	MMT	Percent
1970/71	21.1	80.6
1971/72	21.5	73.0
1972/73	25.6	72.3
1973/74	30.1	69.8
1974/75	27.3	60.1
1975/76	33.6	62.5
1976/77	34.0	60.6
1977/78	40.4	64.4
1978/79	43.1	64.3
1979/80	50.1	65.7
1980/81	49.1	56.0
1981/82	55.3	60.0
1982/83	57.9	56.6
1983/84	52.2	50.5
1984/85	53.1	49.5

1/ Includes soybean equivalent amounts for soybean meal exports.

U.S. and World Meat Production



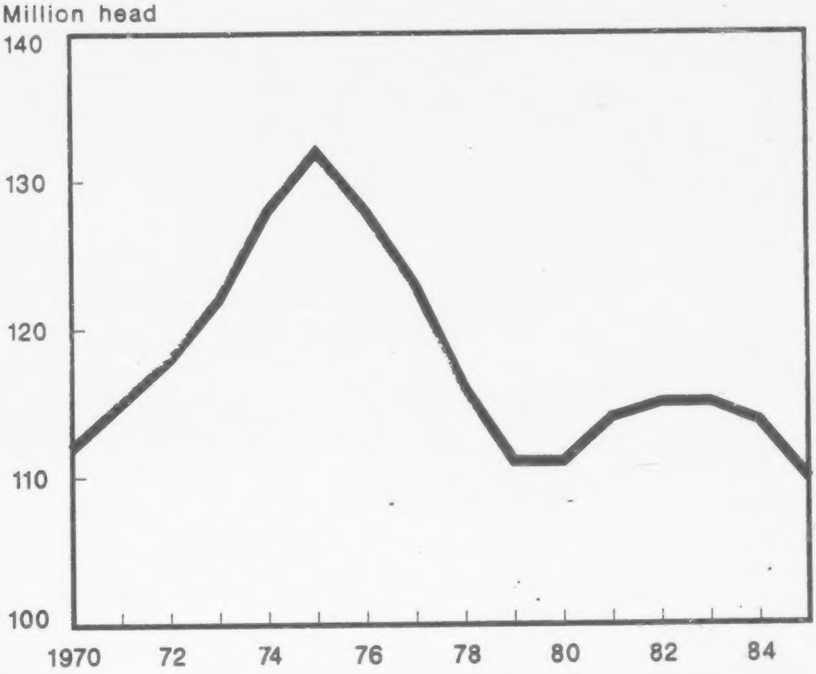
1985 Forecast

U.S. and World Meat Production

Item	1980	1981	1982	1983	1984 1/	1985 2/
	---Million metric tons---					
Beef and veal						
U.S.	10.0	10.4	10.4	10.7	10.9	10.6
World	40.5	40.7	40.8	41.1	41.8	41.5
Pork						
U.S.	7.5	7.2	6.5	6.9	6.7	6.5
World	48.3	48.7	48.9	50.3	50.7	51.2
Poultry						
U.S.	6.6	6.9	7.0	7.1	7.4	7.9
World	21.2	22.3	22.9	23.3	23.9	24.7
Lamb, mutton and goats						
U.S.	0.1	0.2	0.2	0.2	0.2	0.2
World	4.4	4.5	4.6	4.6	4.6	4.7

1/ Preliminary.
2/ Forecast.

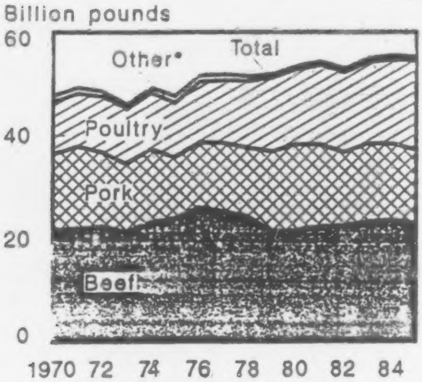
Cattle on Farms, January 1



Cattle on Farms

Item	1970	1980	1981	1982	1983	1984	1985
	- - - Million head - - -						
Cattle on farms	112.4	111.2	114.4	115.4	115.0	113.7	109.8
All cows	48.8	47.9	49.6	50.2	49.0	48.6	46.2
Beef cows	36.7	37.1	38.8	39.2	37.9	37.5	35.4
Dairy cows	12.1	10.8	10.8	11.0	11.0	11.1	10.8

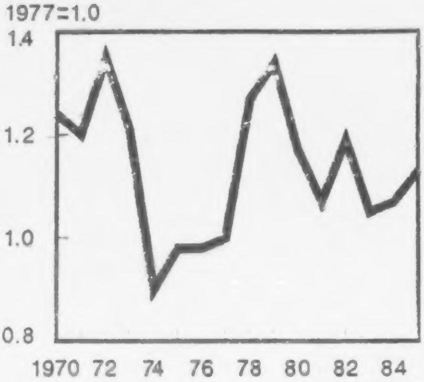
U.S. Meat Production



* Veal, lamb, and mutton.

1985 Forecast

U.S. Livestock Product-Feed Price Ratio



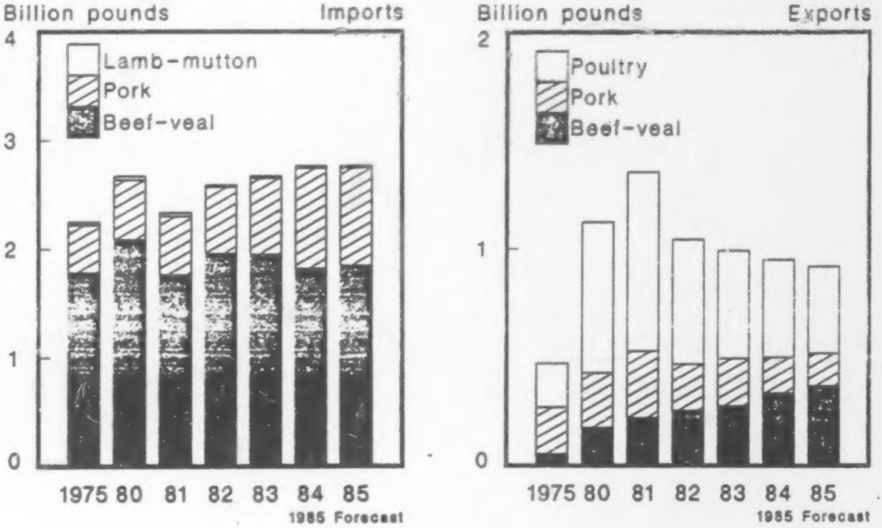
1985 Forecast

Meat Production and Feed/Price Ratio

Item	1970	1975	1980	1981	1982	1983	1984	1985 1/
				---Billion pounds---				
Beef	21.7	24.0	21.6	22.4	22.5	23.2	23.6	23.0
Pork	14.7	11.8	16.6	15.9	14.2	15.2	14.8	14.3
Poultry	10.2	10.6	14.5	15.3	15.4	15.7	16.3	17.4
Other	1.1	1.3	.7	.8	.8	.8	.9	.8
Total	47.7	47.7	53.5	54.3	53.0	55.0	55.6	55.6
				---Ratio---				
Livestock/feed price ratio	1.24	.98	1.17	1.07	1.19	1.05	1.07	1.16

1/ Forecast.

U.S. Meat Imports and Exports



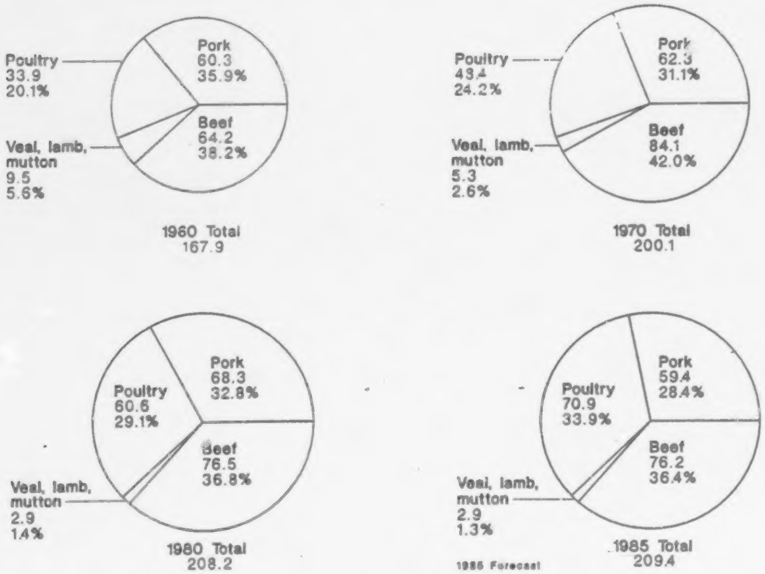
U.S. Meat Exports and Imports

Year	Beef and Veal		Pork		Lamb and Mutton		Poultry		Total	
	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports
	---Billion pounds---									
1970	1.816	.040	.491	.075	.122	.002	0	.132	2.429	.248
1975	1.782	.054	.439	.216	.027	.004	0	.202	2.248	.340
1980	2.085	.176	.550	.252	.033	.002	0	.695	2.668	1.125
1981	1.761	.221	.541	.307	.031	.002	0	.826	2.333	1.356
1982	1.958	.254	.612	.214	.019	.002	0	.575	2.589	1.045
1983	1.950	.276	.702	.219	.019	.001	0	.497	2.670	.994
1984	1.848	.335	.954	.164	.020	.002	0	.461	2.822	.962
1985 1/	1.850	.369	.975	.150	.020	.003	0	.405	2.845	.927

1/ Forecasts.

Per Capita Meat Consumption

Pounds retail weight equivalent

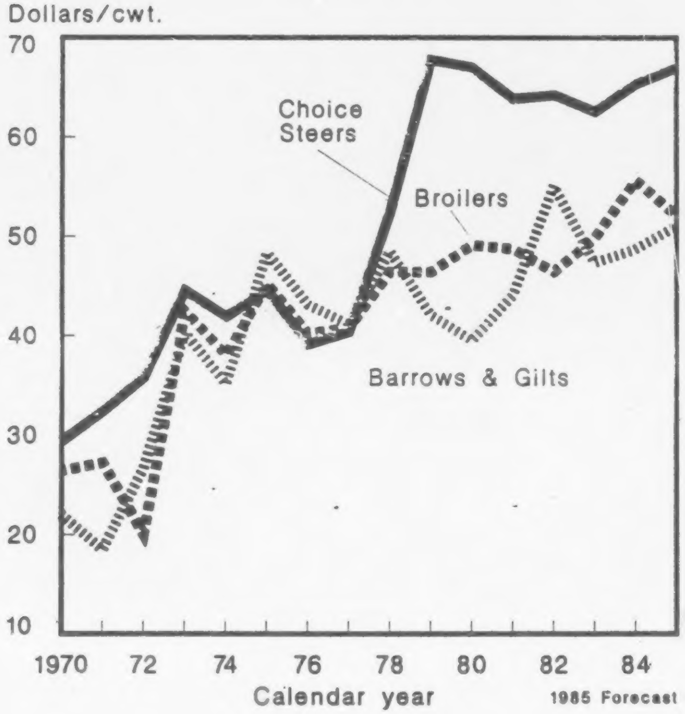


Per Capita Meat Consumption
(Retail Weight Basis)

Item	1960	1970	1980	1981	1982	1983	1984	1985 1/
				--- Pounds ---				
Beef	64.2	84.1	76.5	77.2	77.2	78.7	78.5	76.2
Veal	5.2	2.4	1.5	1.6	1.7	1.6	1.8	1.6
Pork	60.3	62.3	68.3	65.0	59.0	62.2	61.7	59.4
Lamb and mutton	4.3	2.9	1.4	1.4	1.5	1.5	1.5	1.3
Total red meat	134.0	151.7	147.7	145.2	139.3	144.0	143.5	138.5
Broilers	23.4	36.8	47.0	48.6	50.0	50.8	52.9	56.3
Turkeys	6.1	8.0	10.5	10.7	10.7	11.2	11.2	11.4
Other chicken	4.4	3.6	3.1	3.1	3.1	3.0	2.9	3.2
Total poultry	33.9	48.4	60.6	62.4	63.8	65.1	67.0	70.9
Total Meat	167.9	200.1	208.2	207.6	203.2	209.1	210.6	209.4

1/ Forecast.

U.S. Cattle, Hog, and Broiler Prices

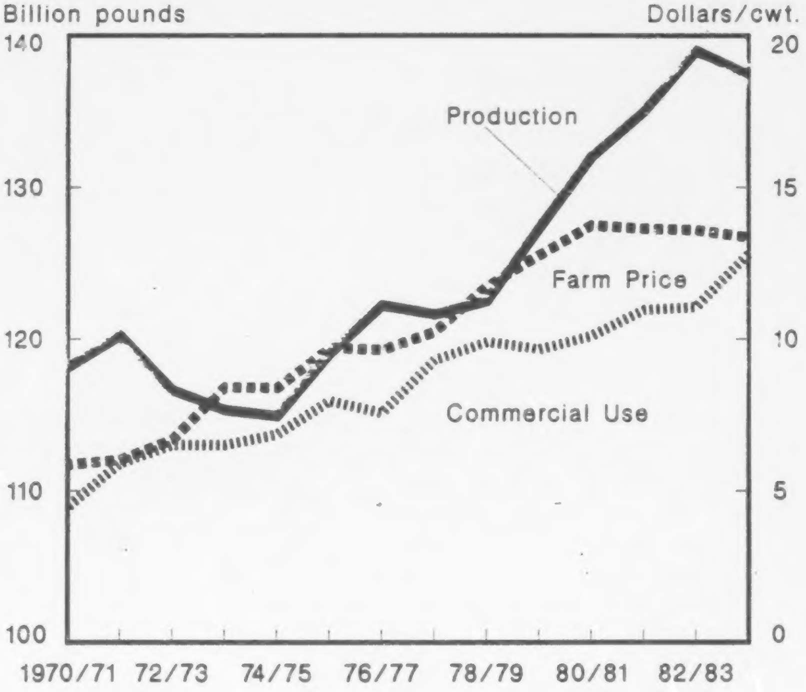


U.S. cattle, hog, and broiler prices

Item	1970	1975	1980	1981	1982	1983	1984	1985 1/
	Calendar							
	- - - Dollars/cwt - - -							
Choice steers	29.36	44.61	66.96	63.84	64.22	62.37	65.34	64-70
Barrows and gilts	21.95	48.32	39.48	44.05	55.07	47.33	48.86	48-54
Broilers	26.40	45.20	49.10	48.70	46.40	49.80	55.60	49-55

1/ Forecast.

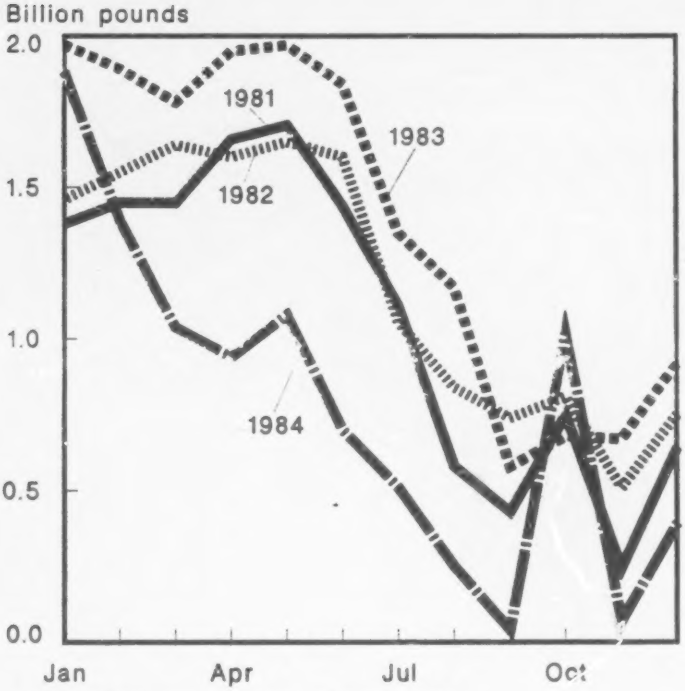
U.S. Milk Production, Use and Prices



U.S. Milk Production, Use and Prices

Item	1970/71	1975/76	1980/81	1981/82	1982/83	1983/84
			---Billion pounds---			
Production	118.1	119.0	132.0	135.0	139.3	137.4
Commercial Use	108.9	115.8	120.2	122.0	122.1	125.5
			---Dollars/cwt.---			
Farm Price	5.85	9.70	13.74	13.63	13.58	13.34

USDA Dairy Product Purchases*

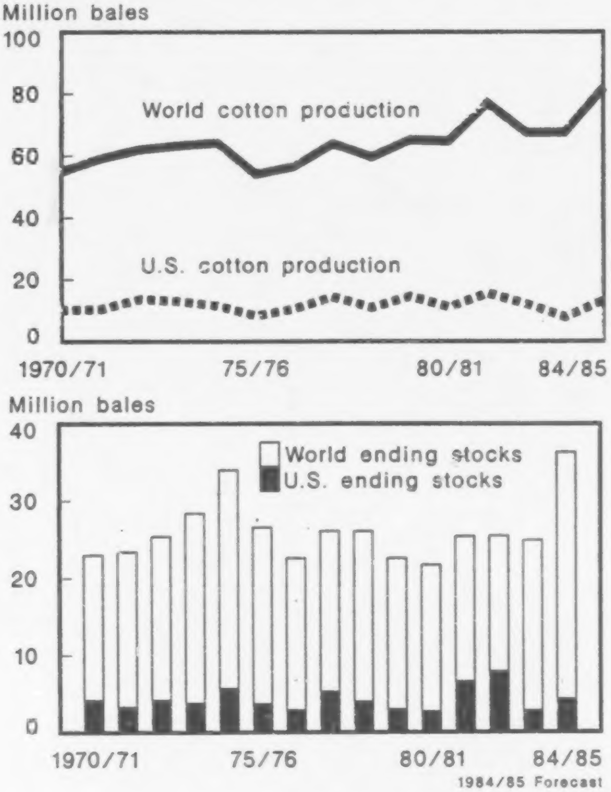


* Net removals, milk equivalent, milk fats basis.

USDA Dairy Product Net Purchases

Item	1970/71	1975/76	1980/81	1981/82	1982/83	1983/84
	--- Million pounds ---					
Butter	294	0.4	356	382	410	230
Cheese	78	11	532	599	820	542
Nonfat dry milk	490	98	787	949	1,047	776
Milk equivalent	7,189	161	12,661	13,841	16,627	10,145

Cotton: World and U.S. Production And Ending Stocks

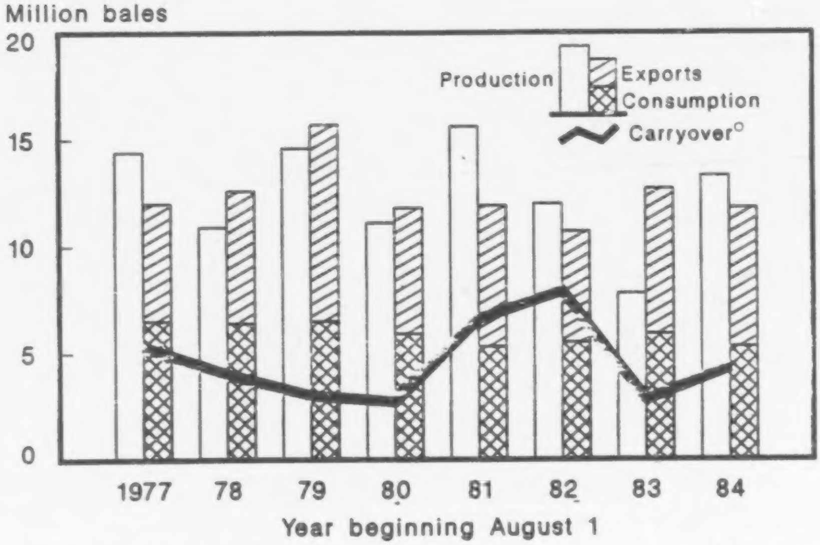


World Cotton Production and Use

Item	1970/71	1975/76	1980/81	1981/82	1982/83	1983/84	1984/85 1/
	---Million bales---						
Production	55.0	54.1	64.8	70.8	67.5	67.6	81.8
Consumption	57.3	61.8	65.9	66.1	68.0	68.8	69.8
Exports	17.7	19.1	19.7	20.2	19.4	19.4	20.7
Ending stocks	23.0	26.6	21.1	25.4	24.9	24.5	36.3

1/ Forecast; Southern Hemisphere crops, which account for 10 percent of global output, are not yet harvested. Global utilization is more uncertain.

U.S. Cotton Production, Use and Carryover



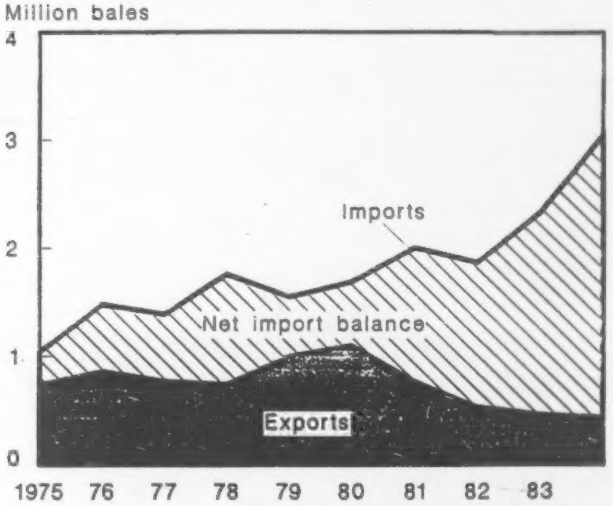
• 480-Pound Net Weight Bales. ○ Ending. 1984 Preliminary

U.S. cotton production, use and carryover

Item	1970/71	1975/76	1980/81	1981/82	1982/83	1983/84	Forecast 1984/85
				- - - Million bales - - -			
Production	10.2	8.3	11.1	15.6	12.0	7.8	13.3
Consumption	8.2	7.2	5.9	5.3	5.5	5.9	5.3
Exports	3.9	3.3	5.9	6.6	5.2	6.8	6.5
Ending stocks	4.2	3.7	2.7	6.6	7.9	2.8	4.3
				- - - Cents/pound - - -			
Farm price	22.9	51.3	74.7	54.3	59.4	66.4	62.2 1/

1/ Weighted average price during the first 5 months of the season. This is not a forecast for 1984/85.

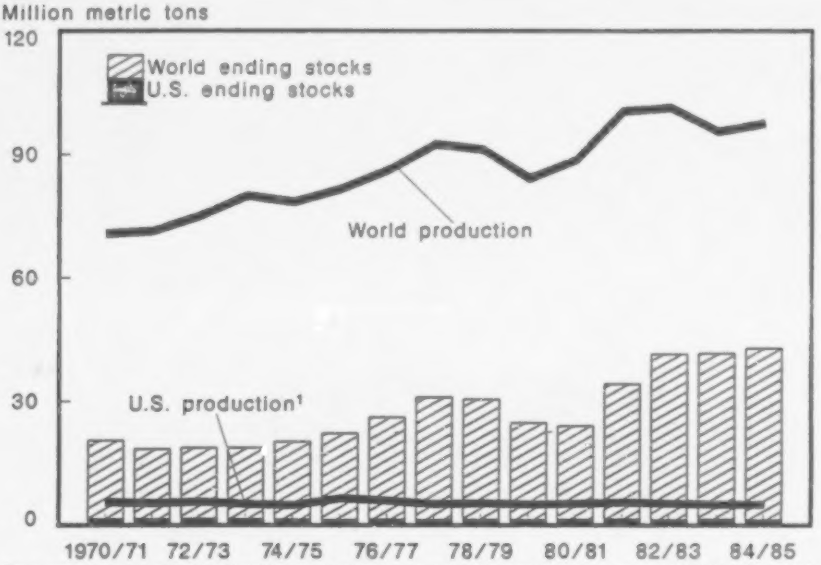
U.S. Cotton Textile Trade



U.S. Cotton Textile Trade

	1970	1975	1980	1981	1982	Estimated	
						1983	1984
	- - - 1,000 480-pound equivalent bales - - -						
Imports	965	1,044	1,689	2,004	1,869	2,336	3,050
Exports	415	737	1,100	765	528	458	430
Import Balance	550	307	589	1,239	1,341	1,878	2,620

Sugar: World and U.S. Production and Ending Stocks



Crop years are on a September/August basis, but include the outturn of sugar from harvests of several southern hemisphere countries which begin prior to September. 1/ Includes Hawaii and Puerto Rico.

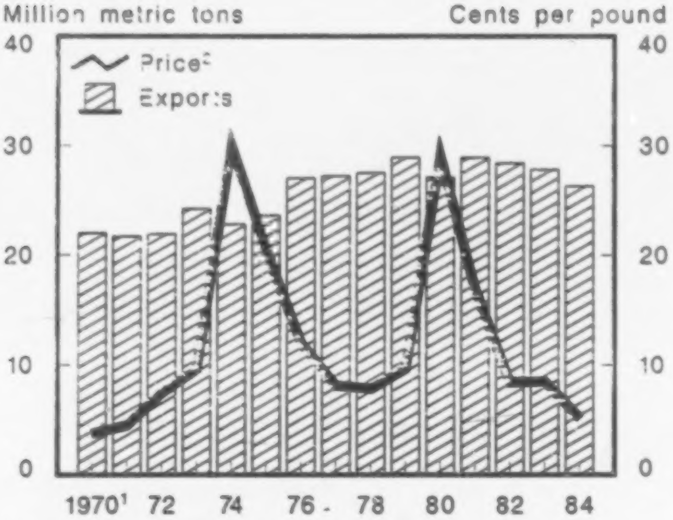
1984/85 Forecast

Sugar Production and Stocks

Item	1970/71	1975/76	1980/81	1981/82	1982/83	1983/84	1984/85 2/
	--- Million metric tons ---						
Production							
World	70.7	81.7	88.8	100.5	101.4	95.6	97.6
United States	5.6	6.6	5.3	5.5	5.3	5.1	5.1
Ending Stocks							
World	19.0	21.0	22.7	32.8	40.3	40.3	41.7
United States 1/	1.5	1.3	1.4	1.5	1.3	1.5	1.3

1/ Includes Hawaii.
2/ Estimate.

World Sugar Exports and Prices



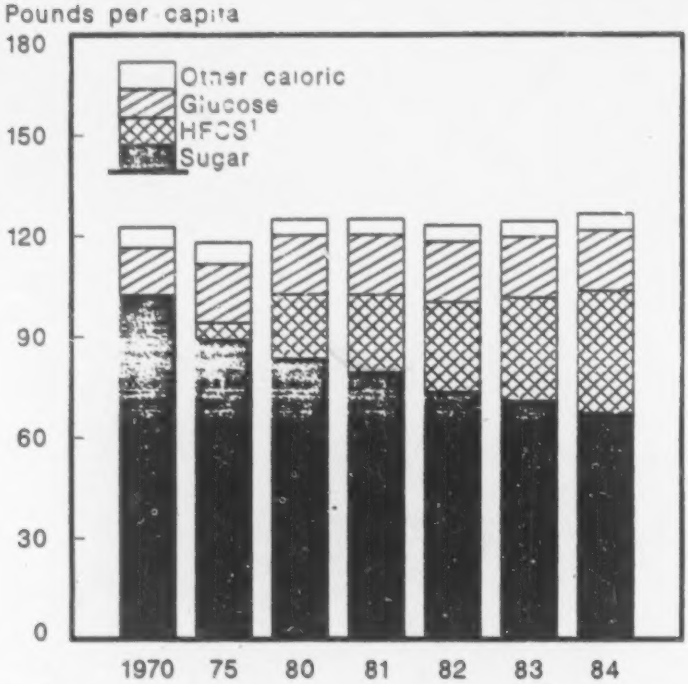
1/ Crop year for exports, calendar year for price.
2/ F.O.B. Caribbean, Contract No. 11. Prices November 1977 to September 1979 derived from London daily price.

World Sugar Exports and Prices

	Exports	Price 2/
Year 1/	Million metric tons, raw value	Cents per pound, raw value
1970	22.0	3.75
1975	23.6	20.49
1980	27.1	29.02
1981	28.9	16.93
1982	28.4	8.42
1983	27.8	8.49
1984	26.3	5.18

1/ Crop year for exports, calendar year for price.
2/ F.o.b. Caribbean, Contract No. 11. Prices November 1977-September 1979 derived from London daily price.

U.S. Per Capita Sweetener Consumption



1/ High fructose corn syrup.

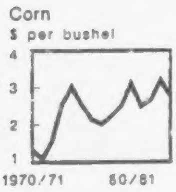
1984 Preliminary

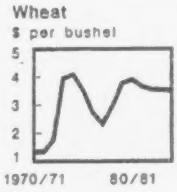
U.S. Sweetener Consumption

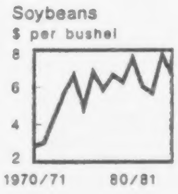
Year	Sugar	HFCS	Glucose	Other Caloric	Total
			- - - Pounds per capita - - -		
1970	101.8	0.7	14.0	6.1	122.6
1975	89.2	5.0	17.5	6.4	118.1
1980	83.6	19.1	17.6	4.7	125.0
1981	79.4	23.2	17.8	4.7	125.1
1982	73.7	26.7	18.0	4.8	123.2
1983	71.1	30.7	18.0	4.8	124.6
1984 1/	67.5	36.3	18.0	4.9	126.8

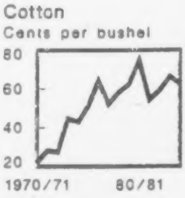
1/ Preliminary.

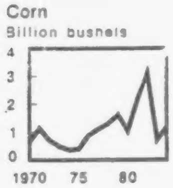
U.S. Commodity Stocks and Prices

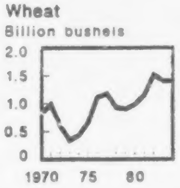


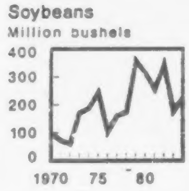


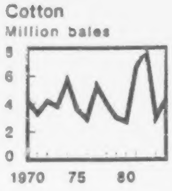










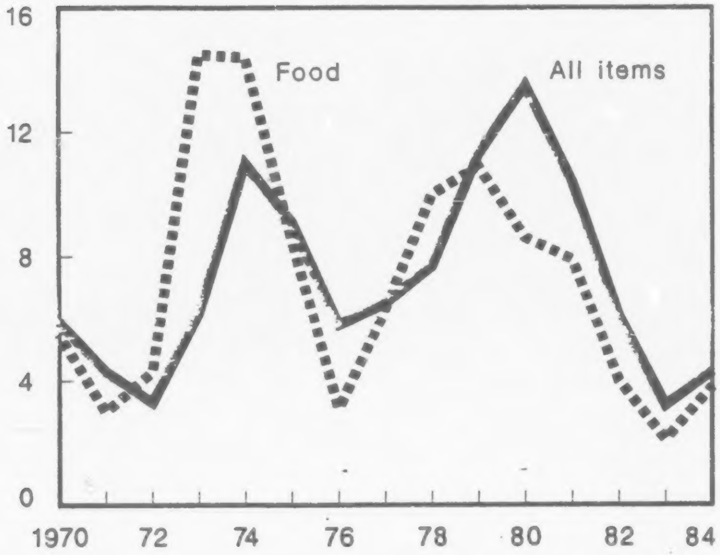


U.S. Commodity Stocks and Prices

Year	Season average prices				Ending stocks			
	Corn	Wheat	Soybeans	Cotton	Corn	Wheat	Soybeans	Cotton
	-------- Dol. per bu. --------			Cents/lb.	--- Bil. bu. ---		Mil. bu.	Mil. bales
1976/77	2.15	2.73	6.81	64.1	886	1,113	103	2.9
1977/78	2.02	2.33	5.88	52.3	1,111	1,178	161	5.3
1978/79	2.25	2.97	6.66	58.4	1,304	924	174	4.0
1979/80	2.52	3.78	6.28	62.5	1,617	902	358	3.0
1980/81	3.11	3.91	7.57	74.7	1,034	989	313	2.7
1981/82	2.50	3.65	6.04	54.3	2,174	1,159	254	6.6
1982/83	2.68	3.55	5.69	59.4	3,120	1,515	345	7.9
1983/84	3.25	3.53	7.74	66.4	723	1,399	176	2.8
1984/85	2.60-2.75	3.35-3.45	5.75-6.45	62.2 1/	1,100	1,416	195	4.3

1/ Weighted average price for first 5 months of season; not a projection for 1984/85.

Percent Change in Consumer Price Index



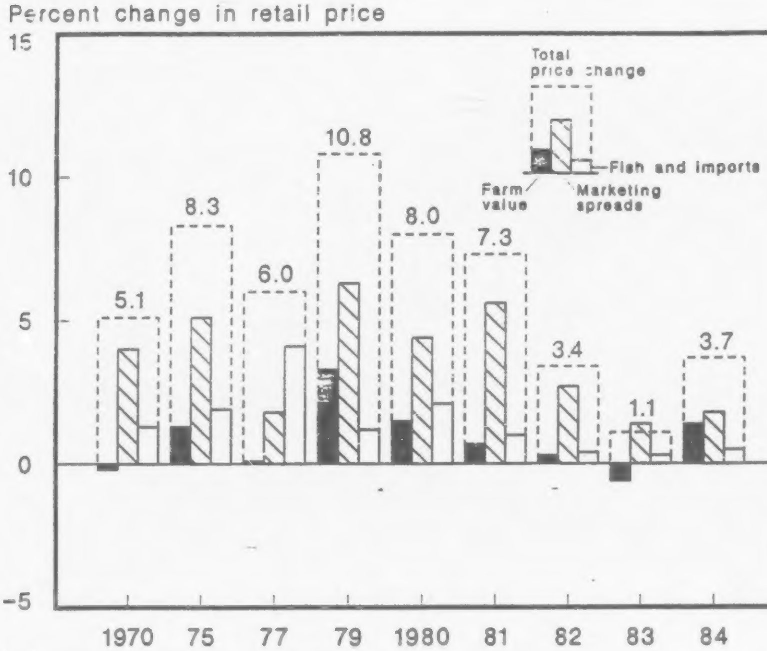
1984 Forecast

Percent Changes in the Consumer Price Index

Year	All Items	Housing	Medical care	Transportation	Food 1/
1970	5.9	7.1	6.3	5.1	5.5
1971	4.3	4.4	6.5	5.2	3.0
1972	3.3	3.8	3.2	1.1	4.3
1973	6.2	4.4	3.9	3.3	14.5
1974	11.0	11.3	9.3	11.2	14.4
1975	9.1	10.5	12.0	9.4	8.5
1976	5.8	6.1	9.5	9.9	3.1
1977	6.5	6.8	9.6	7.1	6.3
1978	7.7	8.7	8.4	4.7	10.0
1979	11.3	12.2	9.3	14.3	10.9
1980	13.5	15.7	10.9	17.8	8.6
1981	10.4	11.5	10.8	12.1	7.9
1982	6.1	7.2	11.6	4.1	4.0
1983	3.2	2.7	8.7	2.4	2.1
1984	4.3	4.1	6.2	4.5	3.8

1/ Excludes alcoholic beverages.

Contributors to Changes in Food Prices

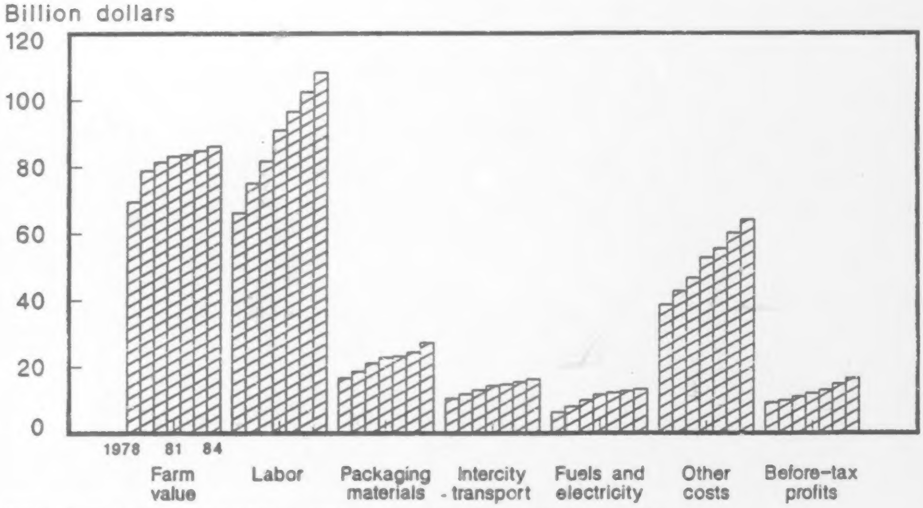


Farm value and marketing spread from U.S. farm-food market basket.
Total price change from food-at-home index, Bureau of Labor Statistics.

Contributors to Changes in Food-At-Home Index

Item	1970	1975	1977	1979	1980	1981	1982	1983	1984
					Contribution				
Farm value	-0.2	1.3	0.1	3.3	1.5	0.7	0.3	-0.6	1.4
Fish and imports	1.3	1.9	4.1	1.2	2.1	1.0	0.4	0.3	0.5
Marketing spread	4.0	5.1	1.8	6.3	4.4	5.6	2.7	1.4	1.8
					Percent change				
Total	5.1	8.3	6.0	10.8	8.0	7.3	3.4	1.1	3.7

Components of U.S. Farm Food Expenditures



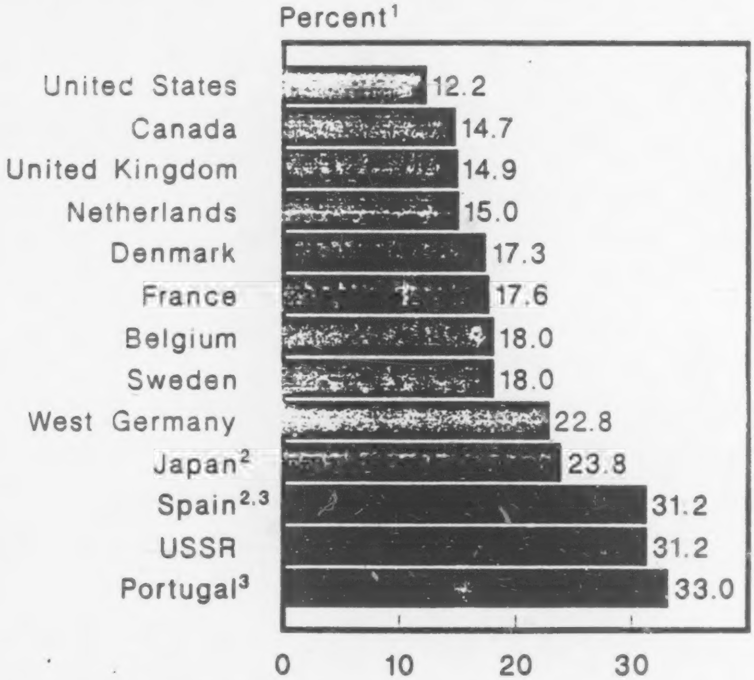
Other costs include depreciation, rent, advertising and promotion, interest, property taxes and insurance, accounting and professional services, and many miscellaneous items.

Components of U.S. Farm Food Expenditures

Item	1977	1978	1979	1980	1981	1982	1983	1984
	- - - Billion dollars - - -							
Farm value	58.2	69.5	78.9	81.5	83.2	83.7	84.9	86.2
Labor 1/	58.3	66.2	75.1	81.7	91.0	96.6	102.5	108.3
Packaging	15.1	16.6	18.6	21.1	22.8	23.2	24.4	27.3
Transportation	9.7	10.5	11.8	13.0	14.3	14.7	15.5	16.3
Fuels & electricity	5.6	6.3	8.0	9.9	11.6	12.2	12.7	13.2
Corporate profits before taxes	7.9	9.2	9.9	11.0	12.0	13.0	14.8	16.5
Other	36.1	38.6	42.7	46.7	52.8	55.5	60.2	64.2
Total	190.9	216.9	244.9	264.9	287.7	298.9	315.0	332.0

1/ Labor employed in processing, wholesaling, retailing, and public eating places.

Percentage of Private Consumption Expenditures for Food, 1982



1/ Excludes food purchased in restaurants and hotels as well as most institutional pruchases.
2/ Includes expenditures on alcoholic beverages and tobacco.
3/ 1981.

Source: Organization for Economic Cooperation and Development. National Accounts 1970-82. Volume II. 1984.

OFFICE OF GOVERNMENTAL AND PUBLIC AFFAIRS

STATEMENT OF WILMER D. MIZELL, ASSISTANT SECRETARY

Mr. Chairman and members of the Subcommittee, I am pleased to have the opportunity to discuss the fiscal year 1986 budget request for the Office of Governmental and Public Affairs.

As you are aware, this office has the lead responsibility for communicating Departmental policy and program information to the public, the Congress, and State and local governments. In essence, we are the communications core of the U. S. Department of Agriculture.

The state of communications technology is rapidly changing. We now have access to electronic and telecommunication information delivery systems that are supplementing printed materials. In fact, we now have the capability of both live video and audio conferencing by policy officials and others to locations throughout the world. Teleconferencing now enables USDA officials to participate in many national and international conferences and meetings and at the same time reduces travel expenses.

FISCAL YEAR 1986 BUDGET REQUEST

The budget request for fiscal year 1986 is $6,799,000. This represents a net reduction of $878,000, or approximately 11 percent below our fiscal year 1985 level of $7,677,000. This decrease is made up of several items of change.

Specifically, we are requesting an increase of $97,000 for annualization of fiscal year 1985 pay costs, a decrease of $239,000 for a 5 percent pay reduction, and a decrease of $736,000 for management savings. The first two items are common throughout the Department and require no further explanation. Let me briefly address the third item.

Over the last several years we have been able to reduce our budget by 14 percent and our staffing level by 20 percent. This has been accomplished without a reduction in services. We responded to these reductions by streamlining our organizational structure and making our operation more efficient. Stringent controls on hiring and audio visual and publication products have already been established. With the critical need to further reduce Government spending, we must begin to reduce program delivery.

Therefore, in order to meet the President's goal of reducing the Federal deficit, we are proposing elimination of the Yearbook of Agriculture. While our resources have been cut back, the cost of the Yearbook continues to escalate. Elimination of this publication will enable this office to continue to fulfill its overall responsibility to provide useful agricultural information to farmers and others in the agricultural community.

This concludes my statement, Mr. Chairman. I will be happy to respond to any questions at this time.

QUESTIONS SUBMITTED BY SENATOR COCHRAN

TRAVEL REDUCTIONS

Question: Why was travel not included in the management savings reductions for fiscal year 1986?

Answer: The nature of the activities within the Office of Governmental and Public Affairs requires that program officials travel in order to actively participate in conferences, meetings, and in order to observe and participate in activities that require the attention and interest of USDA public affairs officials. The travel budget for this office is sufficient to cover only the most essential and necessary travel by officials of the office.

TRAVEL OF GPA EMPLOYEES

Question: For what reasons, generally, do the personnel in your office travel?

Answer: Officials of the Office of Governmental and Public Affairs have the responsibility of liaison with State and local officials and their representative public interest groups on Departmental matters. The discharge of these duties require travel to meet with Governors, State Legislators, Heads of State Departments of Agriculture and others, to share information on Department policies and programs and to interact with these officials to discuss their views and the positions of their organizations. They also work closely with representatives of Indian tribal governments and associations which require occasional travel.

Travel is primarily confined to scheduled meetings and conferences of the major intergovernmental organizations, such as the National Governor's Association (NGA), National Conference of State Legislatures (NCSL) and the National Association of State Departments of Agriculture (NASDA), and their regional affiliates. By attending these meetings, officials are able to meet with more State and local officials in one location, thus saving travel costs.

Travel is made to specific locations in order to lend assistance to USDA program officials who may, as a result of insect infestation, natural disasters, or as a matter of public interest in their programs, need the assistance to document, prepare and release materials to the media.

There is also a need to travel to conferences and meetings of media representatives in order to establish and maintain media contacts that are essential to the dissemination of USDA program and policy information to the agricultural publics.

DECREASE IN PRINTING

Question: Is the decrease in printing and reproduction attributable solely to the termination of the Yearbook of Agriculture?

Answer: The decrease in the Department's printing and reproduction is attributable to a selective review of periodicals, pamphlets, and audiovisual products required by OMB Bulletin 81-16, and a review of all periodicals and pamphlets required by the PAPER (Periodical and Pamphlet Elimination Review) Task Force established by the Secretary in October 1981. The reviews were conducted to assure the production of only those materials essential to carrying out the missions of the Department and its agencies.

TOPICS OF FARMERS' BULLETINS

Question: What are the general topics of farmers' bulletins?

Answer: Topics covered in Farmers' Bulletins include: plant and animal science; insect control; food, flowers, fruits, and vegetables for home use; agricultural and consumer economics; soil and water conservation; engineering; and other subjects for farmers and consumers. The booklets are written in a nontechnical style, readily understood by the general public.

FARMERS' BULLETINS EXPENSES

Question: What are the expenses associated with the farmers' bulletins?

Answer: Office of Governmental and Public Affairs expenses associated with Farmers' Bulletins in FY '84 are: Printing and Binding - $180,000; Salaries and Expenses - $117,000 for a total of $297,000.

YEARBOOK OF AGRICULTURE

The Yearbook of Agriculture is a very popular item.

Question: Why are you proposing to discontinue its publication?

Answer: We are proposing to eliminate the Yearbook of Agriculture in order to comply with the President's goal to reduce the budget deficit. Over the past several years, we have absorbed budget reductions amounting to 14 percent through such management actions as streamlining organization structure and realizing operating efficiencies. By FY 1986, we will no longer be able to absorb reductions and continue printing the Yearbook without an adverse impact on USDA information programs.

Question: Does it not provide valuable information in a concise form to a large number of people?

Answer: The Department considers all the information it produces valuable to some segment of the populace. However, the popularity of a product can be a relative matter. Something given away free will usually find a large audience. In the case of the Yearbooks produced for the years 1981 through 1983, we have found the Superintendent of Documents sold only an average of 6,500 copies per issue. Most Yearbooks, some 230,000 annually, are distributed free of charge by members of Congress to their constituents.

OFFICE OF THE INSPECTOR GENERAL

STATEMENT OF JOHN V. GRAZIANO, INSPECTOR GENERAL

Mr. Chairman, Members of the Committee, I appreciate the opportunity to appear before you today.

GENERAL COMMENTS

My statement will address the Office of Inspector General's (OIG) overview of some of the major programs and activities of the Department as well as those of OIG.

In FY 1984 approximately 63 percent of our Audit and Investigations resources were devoted to the farm loan, Agricultural Stabilization and Conservation Service (ASCS) and the Food and Nutrition Service (FNS) programs.

FARMERS HOME ADMINISTRATION (FmHA)

The farm credit problems have grown immensely over the past year resulting in increased financial stress for many farmers. The effects of natural disasters and weaknesses in farm economic conditions in FY 1984 have been reflected in FmHA's loan portfolio. As of September 30, 1984, farm program loans showed a delinquency rate of about 32 percent versus 30 percent in FY 1983 and 25 percent in FY 1982. We have also noted with great concern increases in unauthorized disposition of loan security. Our resources have been directed to monitoring FmHA's administration of disaster related loan programs, initiatives to deal with delinquencies, and to investigate cases of unauthorized loan security disposition. In FY 1984 23 percent of our total resources were directed to reviewing and monitoring FmHA activities.

Emergency (EM) Loan Program

Due to widespread disaster conditions in 1983, many FmHA County Offices processed EM loans in 1984. We provided early audit coverage in 12 States with the objective of reporting to FmHA problems which it could correct while the program was in progress. Problems with administrative controls resulted in loans to borrowers who did not have qualifying losses, incorrect loan amounts and loans not processed according to FmHA procedures. Many of the errors were caused by new and inexperienced personnel. However, the complex nature of the EM Loan Program is also a significant factor and problems may not be rectified until loan processing is simplified.

Economic Emergency (EE) Loan Program

A court order required FmHA to make $600 million available for insured and guaranteed loans beginning December 1983. We conducted audits to assess FmHA's administrative controls to ensure loans were made to eligible producers. Our report summarizing National trends and conditions is not completed; however, our State Office reports have identified conditions similar to our previous audits of these loans. For example, loans were made for ineligible purposes and to ineligible borrowers, loan amounts exceeded statuatory limits and loan making procedures were bypassed.

Special Debt Set Aside Program

Effective October 19, 1984, FmHA, at the direction of the President, amended its regulations to permit qualified borrowers to postpone farmer program loan payments for 5 years, not to exceed specified limitations. FmHA will determine whether the borrowers' expected operations, with the postponement, would generate the necessary cash flow to overcome the current delinquency. Although we are still monitoring the program's implementation, we have reported to FmHA inconsistencies among the States in establishing crop unit prices and estimating expenses to forecast cash flow. We have recommended that the FmHA National Office establish nationwide crop unit prices which States could adjust by 3 to 5 percent for local conditions. We also recommended that the agency address how expenses should be forecast to account for fluctuations such as inflation.

AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE (ASCS)

COMMODITY CREDIT CORPORATION (CCC)

One of the primary problems facing the Department, and the farm community, is the production of more commodities than markets can absorb. As of January 1, 1985, the Commodity Credit Corporation had inventories of 250 million pounds of butter, 1.2 billion pounds of nonfat dry milk, 209 million bushels of corn and 369 million bushels of wheat. The Department has implemented or initiated a number of programs to reduce production and deal with the stocks in inventory. Our efforts have been directed to monitoring and reviewing those programs. We have also increased our resource commitment to issues involving protection of the integrity of the price support and production adjustment programs administered by the Department.

Payment-In-Kind (PIK) Program

We had previously highlighted our results of monitoring the PIK program. We have now completed the final phase of our work which is the determination of PIK benefits, delivery of the commodities, and storage payments made to the delivery points. We are analyzing the results and drafting a report with accompanying recommendations which we expect to issue in the near future. It is significant to note that during this audit we identified one cooperative that overstated its storage expense for each bale of cotton because of a computer programming error. The cooperative returned the difference, about $3.8 million, to the Commodity Credit Corporation during the audit.

Illegal Marijuana Cultivation

ASCS joined with OIG in a project to assist the Drug Enforcement Administration by providing intelligence information on illegal marijuana cultivation. We determined that an existing regulatory and legislative provision to deny program benefits to persons involved in marijuana cultivation was ineffective. OIG and ASCS drafted a legislative proposal which would deny all USDA farm program benefits to persons involved in any aspect of illegal marijuana production. The proposal has been approved by the Department and will be submitted to the Congress during this session.

Milk Diversion Program

The Dairy and Tobacco Adjustment Act authorized the Secretary of Agriculture to implement the Milk Diversion Program to encourage farmers to adjust production consistent with the national demand for milk. As the regulations were developed, we worked with ASCS to strengthen internal controls over program requirements. Program implementation was evaluated through our on-site reviews in seven large milk producing States. We found few procedural errors in establishing producers' milk bases and preparing contracts. We have just completed field work where we tested producer compliance and payments made to producers.

Food Donations Program

The Department implemented Public Law 98-8, enacted March 3, 1983, to distribute surplus agricultural commodities to institutions such as schools, temporary shelters and food banks. The program is intended to help strengthen the agricultural market for food and to improve the nutritional diets of children and the needy. As of the end of December 1984 the program had made available over 1.6 billion pounds of commodities for distribution valued in excess of $2.1 billion.

We recently completed an audit in one large city in response to allegations of waste and mismanagement. The city had continued to store commodities in a cold-storage facility with known refrigeration problems. Dry goods commodities were stored at another warehouse after the city's Department of Health identified it as inadequate. Because of these problems, the city discarded, or could not account for over 568,000 pounds of food valued in excess of $400,000. Following our audit the State agency took action to correct the problems. Another audit of a major distributor showed similar problems with warehouse facilities and a lack of accurate and complete records.

FOOD AND NUTRITION SERVICE (FNS)

The Food Stamp Program (FSP), which was budgeted for about $12 billion in FY 1984, represented 12 percent of our Audit and Investigations resources. In addition, we have received assistance addressing violations in this program from other Federal, State, and local agencies. Since the Memorandum of Understanding with the U.S. Secret Service was executed in January 1984, that agency has been actively pursuing food stamp fraud committed by criminal elements outside of the Program. Also, State and local welfare fraud units continue to actively conduct most of the investigations of persons who illegally participate in the FSP. Our investigative efforts have been in major food stamp thefts, recipient fraud rings, and major violations by authorized retail grocery stores.

Previous audit efforts have shown that wage-matching is an effective means of identifying unreported and underreported income and the resulting ineligible recipients. Our audit efforts have, therefore, focused on FNS' actions to implement wage-matching, remove ineligibles from the roles, and collect improper benefits. FNS' actions have resulted in improvements in the programs. Overall, according to the agency, the overpayment error rate for States has decreased from 9.57% for FY 1982 to 8.36% for FY 1983.

Deficit Reduction Act of 1984

The Deficit Reduction Act of 1984 required exchange of information among specific Federal programs to further strengthen income and eligibility verification. When implemented the new regulations are expected to significantly reduce payments to ineligible recipients. We will be performing follow-up reviews to determine if the provisions have been implemented and are working.

Other FNS Activities

We are monitoring the Electronic Benefit Transfer (EBT) demonstration project in Reading, PA, which began October 1, 1984. In addition, we support

"Operation Awareness," the FNS project which provides for the sharing of useful techniques to State and local agencies to assist them in reducing fraud and waste in the Food Stamp Program.

FEDERAL CROP INSURANCE CORPORATION (FCIC)

Another farm program issue which is closely related to the operations of ASCS and FmHA loan and price support programs is the crop insurance program operated by the Federal Crop Insurance Corporation (FCIC). Based upon our investigative experience in this program, we believe that it could emerge as an area of major vulnerability in the Department's operations. We have noted trends in these programs which indicate persons who defrauded the program have done so because it was more profitable to farm for insurance than to farm for a successful crop. We reported on this situation in our Semiannual Report to the Congress for the last half of FY 1984. Because of this perceived vulnerability of the crop insurance program, we will work with FCIC officials on ways to lessen the possibilities for fraud and abuse. We also plan to increase our audit and investigative scrutiny of all activities involving the crop insurance program.

RURAL ELECTRIFICATION ADMINISTRATION (REA)

We had previously highlighted our audit efforts in REA's Electric Distribution Program. Our reviews had focused on: (1) cooperatives' financial need for REA subsidized loans, (2) REA loan-making policies to borrowers serving areas which are not predominately rural in nature; (3) REA's control of loan fund disbursements; and (4) the financial condition of the revolving fund. Overall results emerging from these audits indicate that some borrowers are financially capable to obtain all or a large portion of their financing from non-Government sources. We also reported on the rapid deterioration of the almost $7.9 billion revolving fund. The high cost differential between interest costs on money borrowed by REA and the mandatory 5 percent maximum rate on loans made by REA is causing the deterioration. In addition, some cooperatives were serving areas whose characteristics had changed from rural to predominantly urban. We are currently pursuing similar issues in REA's loan programs for telephone utilities and electric generation and transmission borrowers.

FOOD SAFETY AND INSPECTION SERVICE (FSIS)

OIG continues to give the highest priority to matters involving the health and safety of the public. In this regard we have substantially increased our investigative efforts in criminal activity in programs which ensure the wholesomeness of meat products for human consumption. Our investigations have uncovered major criminal violations by meat packers who have supplied large quantities of adulterated meat products to the public, and in one case the National School Lunch Program. Our emphasis in this area is to promote corrective action and prevent hazards to the public health.

AUTOMATED DATA PROCESSING (ADP) REVIEWS

USDA spent over $400 million in Fiscal Year 1984 for hardware, software, and other ADP support services. Department projections estimate continued expenditures as agencies move to automate and update their operating systems. Recently the Secretary announced a five-point management plan for USDA to improve program management and administrative support. Since one of the areas of emphasis of this plan is information resource management, our reviews of ADP activities within the Department will help ensure the most cost effective and efficient use of government resources.

Computer Centers

Our reviews of the Departmental Computer Centers disclosed that improvements need to be made in computer security, workload forecasting, and capacity management techniques. Also, alternative solutions are needed to provide more economical and effective ADP services to the user agencies. We continue to work with the Department to resolve these audit issues.

State and County Office Automation Project (SCOAP)

OIG's ongoing review of the ASCS State and County Office Automation Project, with an estimated eight year system-life cycle cost of $200 million, recommended improvements in physical security and the consolidation of processing requirements among County Offices. In addition, we have provided ASCS with our user requirements to enhance audit and investigative capabilities without an increase in costs. ASCS generally agreed to implement our requirements. We are similarly conducting an evaluation of the justification for the proposed joint FmHA/SCS procurement of $75 million of microcomputers to automate their offices.

FY 1986 OIG BUDGET REQUEST

During FY 1984 OIG issued 1,301 audits and 1,570 investigative reports primarily in the FmHA, FNS, and ASCS. As a result of our investigations, 1,069 indictments and 1,063 convictions were obtained and 9 suits were filed. Recoveries, collections, savings, fines and claims totaled $22.9 million. The audits resolved during fiscal year 1984 resulted in disallowances and claims of $108.2 million.

The FY 1986 budget request for the Office of the Inspector General is $40.8 million, a net decrease of $5.2 million as part of the Administration's Deficit Reduction Program.

This concludes my statement. I will be glad to respond to questions from the committee.

QUESTIONS SUBMITTED BY SENATOR COCHRAN

RECOVERED FUNDS FROM OIG AUDITS AND INVESTIGATIONS

Question: When money is recovered as a result of OIG audits or investigations, does it go into the Treasury or does it go back into the account of the affected agency?

Response: In most cases, monies recovered by program managers as a result of audit reccommendations are deposited into program accounts and recycled for program purposes. Recoveries remain program specific and are in addition to any Congressional appropriations. For example, recoveries of improperly disbursed loan funds or excessive interest subsidies granted would be returned to Farmers Home Administration operating funds. Whereas monies recovered as a result of investigations and court fines go into the General Fund of the U.S. Treasury. However, money recovered as a result of court order restitution may go into a USDA agency account.

CONFIDENTIAL EXPENSES

Question: You are requesting bill language providing funds for confidential operational expenses, including the payment of informants.
Have you never paid informants before? If you have, then why is it necessary to request such bill language? If you haven't, has the inability to pay informants severely hindered an investigation?

Response: In the past we have made incentive payments to Confidential Sources who furnished information and evidence. The funds were made available by affected USDA program agencies and OIG appropriated funds.

The request for fiscal year 1986 is to more clearly identify the funds needed to perform my duties as Inspector General. These funds are used to pay informants, to support undercover criminal investigations, and other confidential operational expenses. While it is unlikely that the $75,000 amount requested will be expended, it has been my experience that such amounts are needed to temporarily meet such expenses as the purchase of stolen or counterfeit food stamps. This is not a request for an increase in our budget, only for specific language allowing us to use up to $75,000 of our current funds for these purposes.

Question: Could the informants' identities ever be obtained under the Freedom of Information Act?

Response: Informant identities cannot be obtained under the Freedom of Information Act. Federal law (5 U.S.C. 552 (b)(7)(D)) protects the identity of a confidential source.

FUNCTIONS TRANSFERRED TO DEPARTMENTAL ADMINISTRATION

Question: What functions and activities were transferred from your office to Departmental Administration?

Response: All standard personnel services, corresponding program operations, and related functions; standard employee development services; and administration of the equal employment opportunity investigative contracts.

REDUCTION IN STAFF-YEARS AND BUDGET AUTHORITY

Question: With the Administration's emphasis on reducing fraud and waste in government programs, how do you justify reducing your staff-year ceiling by 61, and cutting your budget by 13%?

Response: Our budget request is a reflection of the Department's overall proposed reduction in its programs. OIG's role of oversight and review will be adjusted as programs are eliminated or cut back. We believe that by redirecting our resources to programs with the most impact we will continue to provide adequate service to the Department.

AMENDMENTS TO THE FOOD STAMP ACT OF 1977

Question: According to your semiannual report covering the second half of Fiscal Year 1984, the Food and Nutrition Service has recommended some amendments to the Food Stamp Act of 1977 which should "promote a more vigorous antifraud program by creating a less burdensome system for States to operate in obtaining reimbursement for 75 percent of the administrative costs for investigations and prosecutions."

a. How much of an increase in caseload reviews do you expect in your office due to this change, if it is adopted?

b. How much, in dollar terms, do you expect State claims to increase if this change is adopted?

c. Are claims paid to States from your budget or from the accounts of affected agencies?

Response: The specific number of cases to be investigated by OIG and the amount of claims will increase, depending on the success of State agencies and their antifraud activities. We also anticipate increases in the number of case reviews and dollar claims and collections by State agencies although we cannot determine the specific levels of increase.

With respect to claims for reimbursement paid to States, the costs associated with the antifraud activities are reimbursable from the Food and Nutrition Service under the 50 percent cost reimbursement criteria plus 25 percent enhanced funding for investigation and prosecution activities. It should also be noted that States retain 50 percent of the monetary collections for fraud cases.

LOAN FRAUD AND LENDER VIOLATIONS IN FmHA LOAN PROGRAMS

Question: What kinds of loan fraud and lender violations do you generally find in the Farmers Home Administration loan programs.

Response: There are primarily two categories of loan violations in the FmHA loan programs.

Borrower Violations

The most common form of fraud encountered in the FmHA loan programs is committed by borrowers who sell the property securing the FmHA loans without authorization or accounting for the proceeds from those sales. To hide these illegal sales borrowers sell property in the names of other persons, forge FmHA endorsements on joint checks and travel out of their usual marketing areas to make the sales.

Another common type of fraud by borrowers/loan applicants is the concealment or exaggeration of debts or assests in order to obtain loan approvals and/or more favorable rates of interest.

Lender Violations

In some cases private lenders have conspired with FmHA loan applicants to conceal or exaggerate assets or liabilities in order to refinance an applicant's bad debts to that lender, and/or to qualify for FmHA guaranteed loans. These situations sometimes involve the misapplication or misuse of FmHA loan funds by the borrower or the lender or both. FmHA loan funds intended to be used for operating expenses are sometimes used for such purposes as payment of old debts not made known to FmHA or for non-farm businesses.

Also, lender violations of the terms of loan guarantee agreements were a major contributing factor in losses in the FmHA Business and Industrial Loan Program. Lenders violated loan making and servicing requirements by: not accounting for the use of loan funds; allowing use of loan funds for unauthorized purposes; not obtaining and maintaining adequate collateral; and not accounting for collateral when liquidating loans. Also, lenders were found to have misused proceeds of liquidation by applying proceeds to overdrawn bank accounts and nonguaranteed loans rather than to the loans guaranteed by FmHA.

CANCELLED LOAN GUARANTEES

Question: During the second half of fiscal year 1984, loan guarantees of $1.2 million were canceled pursuant to your recommendations. Under what programs were these guarantees originally made?

Response: The $1.2 million of canceled loan guarantees reported in our September 1984 Semiannual Report consisted of two Farmers Home Administration guaranteed business and industrial loans. The Farmers Home Administration agreed with our recommendations to cancel these guarantees and demanded recovery from lenders when funds had already been disbursed to a third party.

GRATUITIES FURNISHED TO FEDERAL GRAIN INSPECTORS

Question: Why did the Attorney General not prosecute Federal grain inspectors who solicited or accepted cash or liquor from the operators of ships they were inspecting?

Response: The U.S. Attorney's office in Houston declined to prosecute the inspectors due to the relatively small amounts of cash and/or gratuities involved. The exception, the inspector who admitted to receiving cash and gratuities of approximately $4,500, was not prosecuted because he admitted to the extent of the cash and gratuities only after the U.S. Attorney declined prosecution. Therefore, the U.S. Attorney recommended the Department take administrative action against the inspectors in lieu of criminal prosecution.

After the U.S. Attorney declined the cases, the Department fired three inspectors and suspended three others. The inspector who received the large amounts of cash and gratuities resigned.

GRAIN NOT PROPERLY INSPECTED

Question: How much grain was not properly inspected due to these payoffs?

Response: None. The gratuities were furnished to Federal Grain Inspection personnel who were conducting examinations of ships' holds, not those inspecting and grading grain for exportation.

FOOD STAMP TRAFFICKING

Question: How widespread is food stamp trafficking? How much does it cost the taxpayer?

Response: The sheer size of the Food Stamp Program in both number of participants and amount of benefits has made food stamps a common medium of exchange throughout the United States. We have no way of measuring the extent of illegally used food stamps, but our investigations have shown that it is possible to buy just about anything with food stamps anywhere in the country. In FY 1984, OIG obtained 496 indictments and 500 convictions of persons trafficking in food stamps. The FNS Compliance Branch reviewed in FY 1984, 4,651 retail stores for possible trafficking violations with 31.5% of these revealing violations which warrant possible disqualification from the Food Stamp Program. Many of the individuals we have investigated have had extensive prior criminal records for such offenses as homicide, assault, burglary, theft, narcotics and weapons violations. Some have been identified as having ties to organized crime.

Although OIG and the FNS Compliance Branch have devoted a heavy concentration of resources to trafficking activities, there is no indication that this form of abuse is any less prevalent.

SINGLE AUDIT CONCEPT

Question: In your semiannual report, you discussed audits conducted under the single audit concept. Please explain, generally, what the single audit concept is, and whether the Federal Government contributes funds to those audits. If USDA does contribute to these, please include in your explanation how much money is involved.

Response: Historically, Federal grants have been audited individually, yet several studies including those of the General Accounting Office and the Joint Financial Management Improvement Program, found this approach cumbersome and ineffective. In October 1979, in response to a Presidential initiative to streamline Federal aid, the Office of Management and Budget adopted a new single audit approach (Office of Management Budget Circular A-102, Attachment P), that changed the focus of audits to the grant recipient, rather than the individual grants. In October 1984, the Congress, in order to give priority and consistency to the new single audit approach, passed single audit legislation. This legislation is entitled the "Single Audit Act of 1984" (Public Law 98-502). On April 12, 1985, the Office of Management and Budget issued Circular A-128 which establishes audit requirements for State and local governments that receive Federal aid, and defines Federal responsibilities for implementing and monitoring those requirements.

USDA indirectly contributes funds to complete these audits. USDA provides State Administrative Expenses to offset the costs associated with the management of USDA programs. However, USDA does not isolate specific categories of expenses such as audit charges on a nationwide basis.

OFFICE OF THE GENERAL COUNSEL

STATEMENT OF DANIEL OLIVER, GENERAL COUNSEL

Mr. Chairman and members of the Subcommittee, I am pleased to appear before you to discuss the Office of the General Counsel's fiscal year 1986 appropriation request.

FISCAL YEAR 1986 BUDGET REQUEST

For the fiscal year 1986 budget, we have requested $13,961,000 in budget authority.

This budget assumes 360 full-time equivalents (FTE's), a five-percent pay reduction, and a share of the 10 percent management savings and certain other changes from the previous year. This request constitutes a net decrease of $1,960,000 from the adjusted fiscal year 1985 appropriation of $15,921,000. From that amount, we have subtracted management savings of $1,563,000 and an anticipated 5 percent pay reduction of $750,000. The budget is increased by $353,000 for annualization of FY 1985 pay costs, yielding the net decrease of $1,960,000.

USE OF FISCAL YEAR 1986 BUDGET REQUEST

When I testified before you on the 1985 Budget, I reported that we would make progress in the following areas: (1) case tracking, (2) improved telecommunications among our offices, and (3) automation of legal research. I am pleased to report that our case tracking system has been implemented in most of our field offices and is providing valuable information about debt collection. Moreover, we are able to determine case load burdens for attorneys and clerical workers and numbers of cases in OGC and in the hands of the Justice Department. The telecommunications equipment I mentioned last year is now installed in all our offices and training has begun on the operation of the equipment. This system enables OGC to transmit documents and to communicate useful information among our offices.

We have an automated legal research system in our law library and several terminals in the Washington office. This helps our Washington attorneys and is available to the field should they so request.

The next phase of our office automation is a system that sets forth how our attorneys spend their time, on what types of cases and for which client agencies. This data will enable us to manage our personnel better and to control our operations more effectively.

I believe OGC can use the available Departmental data processing resources to integrate the data in our Displaywriter case tracking system into one large base for more sophisticated data manipulation and analysis. The Department's systems also have the potential to exchange data with Department of Justice computers and thus permit easier reconciliation of Agriculture and Justice Department debt collection figures. This system could play an integral part in the Department's effort to provide accurate and timely data on USDA debt collection.

GROWING WORKLOAD

Our workload continued to increase last year, and I expect that our caseload will continue to grow, primarily because of the farm credit situation, resulting in increased FmHA legal work, and increased Forest Service litigation and other work.

OGC and its clients have tried to respond intelligently to the need for increased legal services. OGC addressed FmHA's burgeoning needs by providing FmHA state offices with additional OGC field-level support. In addition, FmHA provided OGC with 10 staff-years and $600,000 in fiscal year 1983, and 11 staff-years and $745,000 in fiscal year 1984. We are also concerned about meeting the Forest Service's rapidly expanding demand for legal help. One Hundred Forest Plans must be filed by September 30, 1985. They will result in a heavy, new workload, including administrative hearings and litigation in Federal courts. The Forest Service has promised to provide OGC with FTE's and money to handle legal work resulting from the Forest Plans. Depending on the Forest Service's assessment of its needs in FY 1986 for additional legal services in this area, the Forest Service may provide OGC with up to a total of eight FTE's plus funding.

Mr. Chairman, that concludes my statement. I would be pleased to answer any questions.

QUESTIONS SUBMITTED BY SENATOR COCHRAN

REIMBURSABLE SERVICES FOR FARMERS HOME ADMINISTRATION

Question: Why do you expect your services which are reimbursed by the Farmers Home Administration to be reduced by $1 million and 24 staff-years?

Answer: The President's budget, submitted to the Congress on February 4, calls for the elimination of a number of the programs of the Farmers Home Administration (FmHA) and for significant reductions in others. The February 4 budget also proposes major reductions in the staffing level and administrative funding for FmHA in fiscal year 1986. For three years FmHA has provided funds and personnel ceiling to the Office of the General Counsel to support the FmHA state office pilot project. The February 4 budget estimates that support will total $1 million and 24 full-time equivalent staff years in fiscal year 1985. Continuation of that support in fiscal year 1986 is inconsistent with the more limited role and reduced funding for FmHA proposed in the February 4 budget.

REIMBURSABLE SERVICES FOR FOREST SERVICE

Question: Why are there no staff years associated with your Forest Service activities even though expenditures reimbursed by FS will triple next year?

Answer: The budget estimates that reimbursement from the Forest Service for work performed in connection with the land management planning process will increase three-fold between fiscal year 1985 and fiscal year 1986 to a level of $334,000. At the time the budget was submitted, the two agencies had not worked out all the details of their reimbursable agreement. Since then, for fiscal year 1985, the Forest Service has decided to transfer 3 FTE's to the Office of the General Counsel. No details have yet been worked out for fiscal year 1986.

OGC PERSONNEL

Question: How will you keep the same number of staff years for your current activities (352) when you are reducing personnel compensation by 13%.

Answer: The President's budget shows a personnel ceiling for the Office of the General Counsel for fiscal year 1986 of 360 full time equivalent staff years. However, we currently estimate that, with the funding we have requested, our staffing level will be below this ceiling. We expect to reduce our employment substantially through attrition, which occurs at a rate of between 4 and 5 percent per year.

OFFICE OF RURAL DEVELOPMENT POLICY

STATEMENT OF WILLARD (BILL) PHILLIPS, JR., DIRECTOR

Mr. Chairman, I am pleased to appear today for the fourth time before this Committee. I am here to give an accounting of the preceding year's work by the Office of Rural Development Policy, and to request appropriations for the Office to continue its work in supporting the Department of Agriculture's rural policy function.

We in this Office, under the leadership of Secretary Block and Under Secretary Naylor, are concerned with every aspect of development in rural America. Our endeavor is to identify its most important needs and characteristics, and to make sure that the entire Federal establishment is aware of these special circumstances. We help rural communities and organizations find and use their own resources to tailor successful solutions to their own priority needs.

It would be a mistake for us to confuse what we do with the real source of rural development--the energy and the efforts of rural people themselves. In facilitating, supporting, and encouraging State and local leadership, we encourage local leadership to set its own priorities, marshall its own resources, and help 55 million Americans realize their own capacity for successful management.

Rural Development Strategy

The requirements of the Rural Development Act of 1972 and the Rural Development Policy Act of 1980 describe our tasks very clearly. Later I will use the outline provided there to report to you on the strategy we submitted to Congress last year and our activities.

Last year we considerably expanded the first strategy document submitted to Congress entitled Better Country: A Strategy for Rural Development in the 1980's, with a new policy statement called, Rural Communities and the American Farm: A Partnership for Progress.

Rural Communities and the American Farm, based on a year of analysis and study of rural America, describes the close interdependency between farm families and their communities. It notes that most of these families depend on off-farm sources for a significant part of their income. And, as many communities realize, their prosperity depends on the economic well-being of farm families.

The report suggests a new spirit of partnership between farmers and the rural community--an economic partnership that recognizes the need for nonfarm jobs for farm families and the effects on communities from loss of farm income. The ensuing year has made the wisdom of this direction clearer than before. Many farmers now face serious debt-servicing problems that extend not only to their banks-- but through whole small communities. Every day, newspapers are full of accounts of small towns threatened by the problems of their farm residents.

The Administration's rural development policy has six major themes which have emerged in the two strategy statements sent to Congress thus far. They are:

-- To enhance the economic partnership between the farm and nonfarm rural communities.

-- To encourage the growth of existing rural businesses and stimulate new business ventures.

-- To increase local rural officials' access to the knowledge and skills necessary to address local concerns.

-- To improve the management and protection of rural land and natural resources.

-- To raise Federal officials' awareness of rural concerns and to focus attention on the potential impact of Federal policies and programs on rural communities.

-- To increase the coordination among Federal agencies in the delivery of programs and services to rural areas.

We remain convinced that following these principles and respecting the native ability of rural people to manage their destiny is the best approach to rural development.

The Administration policies that have led to a strong national economy are the center piece of our efforts to help rural people and their leaders bring prosperity to their communities in all corners of the country.

I would like to describe some of our fiscal year 1984 activities for the Committee, under the three main areas of our mission: leadership, coordination, and research and analysis.

Leadership

A key part of our mission is to help the Secretary exercise leadership at the Federal level on behalf of the people of rural

America. That leadership must be, and is, much broader than the work we do as an Office. However, following are some of ORDP's accomplishments in helping to carry the Administration's rural policies:

- In sponsoring a Main Street videoconference, we gave rural communities practical information on restoring the economic vitality of small town business districts, creating new jobs and building civic pride. It was conducted by the Main Street Center of the National Trust for Historic Preservation which is also supported by the National Endowment for the Arts. More than 20,000 community leaders representing 3,000 communities attended. The Main Street Center has also conducted an institute with participants from many communities to help transmit this message and plans further training activities.

- To help local community leaders in identifying sources of assistance from both nongovernment and government sectors, we released the Rural Resources Guide earlier this year. There are more than 400 sources of assistance listed in the "Guide"--more private sector sources have been identified than ever before. The assistance described is much broader than just money; it includes sources of technical and other assistance.

- We are working to reduce fragmentation and duplication of services to rural people. Last year, we organized an 11-member Federal team to participate in the first rural test of the Negotiated Investment Strategy concept. This process involves three teams--local, State, and Federal--who work as equal partners to resolve problems hindering local development.

Through this process, we are working with local officials and private citizens in a three-county area, the Cherokee Nation located in those three counties, six State agencies, and 11 Federal Departments and agencies to help governments work together effectively in a public-private partnership.

- Rural America Review, which we began publishing this year, will fill serious gaps in background information on a number of important economic and leadership subjects for rural public officials and other leaders. This newsletter is a mirror we can hold up to rural Americans showing what they are accomplishing and how much can be shared among communities.

- Helping communities find ways of creating desirable new employment opportunities is a high priority for us. Last summer we co-sponsored a rural high-tech incubation conference in Rolla, Missouri. We chose this means of helping get the word out on the value of rurally based research universities as a resource for high-tech firms which prefer to locate outside metropolitan areas. Research which was the basis for the conference showed that many firms thrive in rural environments.

- ORDP also co-sponsored the Tuskegee Institute Conference of professional farm workers. They are doing important work helping Black farmers with small operations keep their farms through improved farming techniques and by helping find sources of off-farm employment.

- To encourage spreading new technology which is particularly appropriate for rural towns we conducted an exposition on computer use by local officials from small towns last Spring.

There are growing uses of computers by these officials and it is our hope that they will share information on their applications of this technology to promote efficiency. The possibility for sharing information to avoid "re-inventing the wheel" a thousand times is great.

- Keeping abreast of worldwide trends in rural development USDA hosted an international rural development conference conducted by the Organization for Economic Cooperation and Development.

Coordination

Another general charge of the Law assigned to the Secretary of Agriculture and which he has delegated to our Office is coordination of the rural development activities of the Federal government. As the rural development strategy submitted to the Congress by Secretary Block last year promised, we have undertaken many activities in this area. A few examples of these are:

- To help us represent rural interests in all Federal Departments and to help those agencies remember that people in rural areas cannot be served in exactly the same ways that people in metropolitan areas are, Secretary Block has assembled staff-level representatives from the Departments and agencies that serve rural Americans. These officials were designated by their respective Departments. These men and women, at policy levels in their own Departments will serve as points of contact and will articulate the rural viewpoint in their work.
- We help the rural development efforts of other agencies in USDA

as those agencies strive to meet the policy commitments of the Department. During the year, we sent each State Food and Agriculture Council information on resources that would aid them in a meeting their rural development mission. Last Summer a Rural Development Resources Handbook was prepared and distributed. Information was assembled in three categories: improving rural facilities and services; assisting rural governments; and assisting in improving the rural economy through private sector initiatives and job creation.

At other times in the past year, information was sent to FACs on developing export from rural areas, the Job Training Partnership Act, downtown revitalization, technical assistance for small businesses, and resources for volunteering and corporate sector involvement.

- We have been concerned about the special burdens that telephone deregulation will place on rural people. The Rural Electrification Administration and the entire telephone industry have studied the implication of access charges to rural users and have aimed at a position, on behalf of the industry, that will considerably reduce the potential damage that could come to rural telephone users as the result of deregulation. We pledged to make this effort with REA in the 1984 rural development strategy.

- A major focus of our coordination activities has been conservation of natural resources. Natural resources are the critical asset of rural America. We have been active supporters of the Touch America Project, working closely with the Forest

Service and with private sector sponsors. In 1984, more than 7,000 young people volunteered for conservation and natural resource projects. We helped TAP with financial support in its pilot year and helped develop new private sector "partners" for the project.

- This year we contracted for a study of rural voluntarism that identified barriers as well as new opportunities. The study covered many aspects of voluntarism but we directed that it focus particularly on the area of natural resource conservation.

Research and Analysis

The primary role of performing research for rural economic development is a shared function in USDA. We are delegated a part of this responsibility, particularly as it relates to policy development and applied research. Included in our research and analysis activities this year are the following:

- We have been very concerned about how well all Federal programs serve rural people. Consequently, we are supporting research at a state university on methodology for assessing differential urban/rural program benefits and barriers to the delivery of the Federal assistance to rural areas.

- In order to spread information on some key rural development issues we have produced and circulated brief issue papers on rural development related topics including technical assistance, computer use by small governments, and a compendium of papers presented at a session which we sponsored at the American Association of Agricultural Economics.

- There has been a serious lack of information on the nature of the rural labor force and how its characteristics match employment needs. We commissioned a profile of the rural labor force as necessary background for policy development in the areas of rural unemployment.

- It is important that rural revenue resources be given special attention as we move toward reducing the Federal deficit. We have provided an analyst from our staff to help work on studies of local government revenue sources in order to provide a greater rural perspective and to provide some specialized assistance to the Treasury Department. The Treasury Department is now performing the legally mandated review of local capacity as required by the re-appropriations for the Revenue Sharing Act.

- Data on rural areas is more costly and difficult to collect than on metropolitan areas. Rural data needs have sometimes been neglected. We have worked with several Census Bureau task forces concerned with data collection on subjects of particular relevance to rural America. Not only are we helping in the planning for the 1990 Census to ensure that rural data needs are taken into account, members of our staff are also working on task forces in housing, education, health, job development, and transportation.

- At a time when local jurisdictions are being called upon to rely more on their own resources, we have commissioned a study of user fees and alternative sources of local revenue.

- Some rural areas have had very little luck attracting or creating new business opportunities and jobs. We have supported a research and demonstration program in a low income, rural region of Oklahoma which is exploring comprehensive assistance to entrepreneurs in the development of new businesses and even new products which can be produced in rural areas. The study will provide information on how other communities can create and operate comprehensive systems for development of entrepreneurship under unfavorable circumstances.

- Some local governments need better tools to manage their funds to ensure that they get the most for their road and bridge dollars. A multi-state, mid-western pilot project to help small governments develop better means to plan for their road, highway, and bridge needs and set priorities, has just been completed with our support. It will provide a model to permit local governments to make better use of the limited funds available to them.

1986 Budget Request

The budget we are requesting will enable us to maintain the quality of our rural development leadership efforts while reducing our spending from the level in fiscal year 1985. For fiscal year 1986, we are requesting $2,173,000, which is $190,000 less than fiscal year 1985.

We have pared our administrative and management overhead costs, and we have taken other steps to identify ways of reducing outlays without diminishing the impact of our research on emerging rural issues and our other work to improve the quality of rural life.

We have made much progress but there is a large and important set of tasks yet to be pursued. The budget we are requesting is what we need to carry out our goal of promoting the development of rural America.

I will be pleased to answer any questions members of the Committee may have.

QUESTIONS SUBMITTED BY SENATOR COCHRAN

FULFILLMENT OF RESPONSIBILITIES

Question: One of the responsibilities of your office is to make sure that decisionmakers consider the effects on rural America of proposed legislation or regulations. According to your testimony last year, "the urban model people tend to have in their minds is often not applicable to rural settings."

The President's budget for fiscal year 1986 proposes a transfer of rural housing responsibilities to the Department of Housing and Urban Development. Under this transfer, only a rental voucher program would be conducted, beginning in fiscal year 1988. Not only would the reduced funding level hinder rural housing assistance, but the lack of adequate rental housing in rural areas would practically prohibit this program from being successful.

Did your office make any attempt to present the adverse effects this transfer would have on rural housing assistance?

Answer: We have consistently argued that rural areas should not bear a disproportionate share of those reductions in Federal expenditures that are necessary to reduce our deficit and maintain economic recovery.

With respect to the specific subject of housing, our examination of the data shows that there has been a substantial reduction in substandard housing, especially in rural areas, in the last twenty years. I think that it is very likely that if the Department of Housing and Urban Development refocuses its efforts, as the President's budget proposes, rural people will be better served than in the past. HUD will increase the nonmetro share of its assistance from the current 20 to 25 percent to a 50-50 split by 1988.

In fact, most programs that serve rural people are provided by Departments other than USDA. A major continuing role of this Office is to help ensure that other Departments are sensitive to the special qualities of rural communities.

Question: Did your office make any attempt to present the rural viewpoint on other rural program budget cuts, such as cuts in the Rural Development Insurance Fund and cuts in rural grant programs?

Answer: As an agency of the executive branch our recommendations are formulated within the guidelines provided by the President. This year these guidelines are predicated on the need to bring the Federal budget more nearly into balance. I agree with that goal.

We consistently have supported Under Secretary Naylor and Secretary Block in their strong efforts within the Administration to ensure that budget recommendations, as well as all other proposals, do not unfairly call for rural people to sustain more than their share of program reductions or otherwise put them at a disadvantage. We regularly help those officials articulate the rural viewpoint within the Administration.

Question: Have any studies been conducted concerning the possible economic and environmental effects of the President's rural budget cuts?

Answer: Each year our office analyzes the President's proposed budget as part of the annual National Rural Development Strategy update. The analysis examines selected farm and development programs, looking particularly at the rural/urban distribution of program funds.

Question: If so, what part has your office played in such a study or studies, either as a researcher or as a catalyst? If not, why haven't you made that effort either to conduct such research or to encourage other agencies to do so?

Answer: At our request, the Economic Research Service of USDA prepares a more extensive analysis of the budget that covers a broader set of programs and provides some historical perspective. In addition to this work and again in response to our request, ERS has prepared a paper this year that examines the possible impact of changes in agriculture policy and legislation on rural communities.

BUDGET

Question: Please provide a breakdown of budgetary resources allocated to each area of your responsibility as you describe in your statement: Leadership, Coordination, and Research and Analysis.

Answer: Our accounting procedures do not capture numbers under those categories. It is not possible to separate precisely these costs. I would say that leadership and coordination account for roughly 80 percent of our costs and research approximately 20 percent.

Question: Your statement only briefly mentions the FY 1986 budget for your office. Furthermore, the only plans your statement mentions are plans to promote the development of rural America. Could you be more specific? What will you do with the $2.2 million you are requesting for next year? Be specific and use dollar amounts.

Answer: It is virtually impossible to anticipate specifically the projects and their costs which a policy office will undertake a year in advance. A policy office is most effective when its agenda is flexible and it can respond to policy needs as they are developing.

PROGRAM JUSTIFICATION

Question: Why is your office involved in economic research when the Economic Research Service is designed to do such research?

Answer: The Economic Development Division of the Economic Research Service has a large staff of economists and others who do work on many questions, only a fraction of which are of concern to us at any given time. We do rely on their work for the most part, but we sometimes need immediate answers to more applied research questions.

We work closely with the Economic Research Service. They have been very helpful to us not only in generating a great deal of information which is critical for policy development, but also in responding to requests for specific information and tailoring their work to our policy priorities. But they have certain continuing priorities of their own. They cannot always respond to our needs and that means we occasionally supplement their work with other projects. We also keep track of a much larger body of research which is being performed in universities and elsewhere.

Question: Now that you have published a strategy for rural America, why couldn't the National Advisory Council on Rural Development provide the necessary updates?

Answer: The Rural Development Policy Act of 1980 directs the Secretary of Agriculture to prepare the strategy and its annual updates and we believe that major responsibility for formulating the Administration's rural development policies and objectives resides primarily with the Secretary and the Under Secretary for Small Community and Rural Development with major staff assistance from the Office of Rural Development Policy. The Advisory Council, with its broad representation of experience and viewpoints has served an important advisory role, as its name implies.

Question: What will be the cost of updating the rural development strategy?

Answer: It is hard to reach a precise figure for the cost of the 1985 strategy update because so much of ORDP's ongoing work eventually supports the preparation of the strategy document. Demonstration projects designed to assist local officials teach us some valuable lessons that we later document in strategy updates. Our day-to-day analysis of policy issues eventually feeds into the strategy. My staff and I have learned to be highly aware of potential strategy input from interagency working groups and task forces; from countless papers, reports, and news articles; and from face-to-face meetings with groups and individuals throughout rural America.

Most of our office's activities support preparation of the strategy. However, the very narrow costs of writing, printing, and distributing this year's strategy will probably be less than $25,000.

Question: There are numerous interagency task forces within the government to ensure coordination of efforts. Why could an interagency task force, such as the USDA Rural Development Working Group, not effect the coordination of rural program delivery? Why is your office needed in this effort?

Answer: Over the years, the executive branch and the Congress have both recognized the importance of designating one office in the Department of Agriculture whose full-time attention is directed toward rural America. We have a responsibility not just within USDA, which the USDA Rural Development Working Group covers, but even more importantly, across the whole Federal Government. Members of interagency working groups each have other primary responsibilities within their own agency, as interdepartmental groups have to their

Departments. They can only devote incidental time to rural development.

It has been our experience that agency representatives on interagency working groups look to ORDP to provide leadership, direction, and continuity. Moreover, we have developed a capacity to relate to and receive input from the private sector to a degree not normally possible through interagency structures.

Question: Earlier this year you released the Rural Resources Guide, which identified sources of technical and economic assistance for rural communities from both governmental and nongovernmental sectors. Why could this not have been published for sale to communities by a private sector entity?

Answer: It is true that a private organization could have published a guide to rural resources as an independent venture. A Guide to Federal Programs for Rural Development was first produced in 1970 by former Assistant Secretary John A. Baker as a copyrighted publication of the Independent Bankers Association of America. A second edition was prepared at the direction of the Senate Committee on Agriculture and Forestry in 1971. A third and fourth revision were prepared by the USDA Rural Development Service, with March 1975 as the date of the last update.

Since 1975, no private organization has published a comprehensive guide to rural resources. Meanwhile, our Office received numerous requests for a publication, with such information. Rural local officials whose needs we canvassed gave that a high priority as we worked on the initial strategy. The National Advisory Council on Rural Development also stressed the need for such a guide. ORDP chose to publish a new guide to public (State as well as Federal) and private rural resources because no one else seemed interested in doing so.

We thought it particularly important to include private sources of help as well as Federal programs to make it clear that such resources exist and to encourage people to look in more than one direction for ideas and support. In doing so we went beyond anything that had been done previously.

PROGRAM JUSTIFICATION

Question: Please describe your efforts and results in the Negotiated Investment Strategy concept project in Oklahoma.

Answer: In 1983, a delegation of local officials and citizens from Adair, Cherokee, and Sequoyah Counties, Oklahoma, and representatives of the Cherokee Nation located in those counties, requested assistance from Under Secretary Frank W. Naylor, Jr. and our Office in organizing a Federal team to participate in testing the Negotiated Investment Strategy--NIS--technique in a rural area. The Oklahoma officials had found it frustrating to cut through conflicting requirements and cumbersome red tape as they sought to coordinate Federal, State, and local resources in their area. The Office of Rural Development Policy was designated to coordinate this effort. The Office of Management and Budget agreed to participate as cosponsor of this effort with USDA.

ORDP planned and conducted a briefing for Federal officials regarding the NIS concept and enlisted the participation of 11 Federal departments and agencies which we identified as being involved in the area to serve on the Federal team. Two meetings of the Federal, State, and local teams have been held thus far. At the first meeting procedures were established, an arbitrator was chosen, and a review of the issues was begun. There was a full briefing on the chosen issues and some were set aside because they were really not negotiable. Since the first issues had come from local people, Federal participants were invited to submit new issues which they did. Subsequently and at the second meeting, the agenda of the whole process was adjusted. Some of the easy issues were quickly resolved and more difficult issues were worked on in greater depth. Some ongoing developments were also explored and their potential for assisting in the work of resolving issues was considered.

Several issues are on the way to being resolved. A number of major issues now have been successfully concluded. One more meeting probably will be needed.

Question: Your statement describes this as the first rural test of this strategy. What agency oversees this kind of project in non-rural areas?

Answer: There is no single Federal agency that oversees NIS efforts in either urban or rural areas. NIS is usually "triggered" by a local group although it can be initiated by any of the parties who believe there is a need to address intergovernmental problems. The NIS technique was developed by the Charles F. Kettering Foundation in 1977 as an approach to urban problems. NIS was introduced in three midwestern communities: St. Paul, Minnesota; Columbus, Ohio; and Gary, Indiana.

Question: Your statement refers to your "active support" for the Touch America Project. Please describe TAP and your specific involvement in this project, including your activities associated with developing new private sector "partners" for the project.

Answer: The Touch America Project--TAP--is a joint public/private partnership to involve youth in meaningful natural resource-oriented work projects that provide both educational experiences and skills training. The benefits of TAP are shared by the young participants, by their communities, and by the Nation as a whole as our natural resource base is enhanced.

ORDP, through an interagency transfer of funds to the Forest Service, provided $5,000 towards the start-up expenses of TAP. We are a member of the TAP Steering Committee and provide advice and input for program review and evaluation. This project fulfills the strategy's promise that USDA will encourage greater involvement of young people and other volunteers in rural conservation projects. In order to implement the strategy goal of greater private sector involvement, we have worked with Ruritan National, a major rural community service organization with about 1,350 clubs in many rural areas, to involve them in TAP. Ruritan included TAP on the program at their annual meeting and is considering becoming a national partner. If this happens, Ruritan would join other national partners such as the American Association of Retired Persons, the General

Federation of Womens Clubs, and Keep America Beautiful. TAP is well on its way to becoming a private sector effort.

BUDGET

Question: Please detail the object classification "Other Services."

Answer: Approximately $100,000 of the money in object class "other services" is budgeted for repairs and alterations to office space, furniture, and equipment; for employee development and training costs; and for some of the services covered by the Department's Greenbook programs. These include the Management Council cost distribution programs, the departmentwide reimbursable programs, and the departmental working capital fund activities. Specific examples include our prorated share of costs for the services of the National Finance Center, building security, and the health unit.

The other funds in this category are used for the contracted research and demonstration projects of the Office. For example, our expenditures for the Main Street program were charged to this category. Other expenditures in this category included support for The Tuskegee Institute conference of professional farm workers, certain expenditures for the Organization for Economic Cooperation and Development meeting, a study of rural voluntarism, a study of how to measure barriers to rural government's access to Federal programs, a study of the rural labor force, the high tech incubators conference at the University of Missouri, the Public Administrators' Rural Technical Assistance project, a study of user fees and user charges, financial support for the Touch America Project, rural transportation pilot projects, and the Technical Rural Assistance Information Network demonstration project.

Question: In your statement, you assert that your office has pared your administrative and management overhead costs. Yet, personnel and "other services" are the only object classification items being cut from fiscal year 1985 to fiscal year 1986, leaving such items as travel, printing, and communications, utilities and other rent untouched. How have you "pared" your overhead costs?

Answer: It is in the personnel and "other services" categories that most administrative and management overhead costs are located. In the other categories, we have absorbed inflation from fiscal year 1985 to fiscal year 1986. Further, reductions in the personnel category have been primarily in the "support" categories, reducing costs without corresponding reductions in our ability to produce.

PERSONNEL

Question: How many of your staff are Schedule C personnel, and how many are not?

Answer: Four occupied and one vacant position are classified under Schedule C; 26 occupied and five vacant positions are classified under other authorities.

Question: Please provide a brief job description for each position in your office, and the corresponding salaries in fiscal year 1985.

Answer: The positions in the Office of the Director are:

Director, Office of Rural Development Policy. Responsible for directing, planning, and overseeing the total operation of the Office. $68,700.

Deputy Director, Office of Rural Development Policy. . Participates fully with the Director in developing and implementing overall agency policies. Also responsible for overseeing total operation of the Office in the absence of the Director. Vacant.

Confidential Assistant. Serves as assistant to the Director and represents him in confidential, controversial, and novel assignments. Provides advice and other assistance to the Director in determining overall agency policies and objectives. Represents Office and Department in working with other agencies, organizations, and interest groups. Develops policy proposals in targeted subject areas to assure that Federal policies are properly responsive to special needs and concerns of people in rural areas. $57,759.

Confidential Assistant. Serves as public information officer. Resolves and handles administrative and personnel situations and problems. Represents the Director at various conferences and meetings on controversial issues that arise in connection with the Office. Serves as a senior policy advisor to the Director on all policy decisions issued by the Office. $21,804.

Private Secretary. Serves as Private Secretary to the Director and performs a variety of confidential and other duties of a secretarial, clerical, stenographic and administrative nature. $28,347.

Secretary (typing). Serves as Private Secretary to the Deputy Director and performs a variety of duties of a secretarial, clerical, stenographic and administrative nature. Vacant.

The positions in the Research and Analysis Staff are:

Director, Research and Analysis Staff. Serves as a principal resource person and advisor to the Office Director on rural development research and analysis and directs a staff of policy analysts in gathering, analyzing and summarizing data and primary research of others in the development of departmental positions on rural programs. $57,802.

Rural Development Policy Analyst (2). Within assigned topic areas, follows economic trends and conditions, the program activities of all levels of government, and private sector activities affecting rural areas. Monitors, reviews, and summarizes relevant data and reports on research in assigned topic areas. Serves as principal resource person in these topic areas in preparation of decision papers, policy option papers, and draft legislation. Provides authoritative information, research expertise and policy analysis, which identifies, interprets, and develops alternatives and options to complex questions of rural development policy. One position filled at $52,307. One position vacant.

Rural Development Policy Analyst. Within assigned topic areas, follows economic trends and conditions, the program activities of all levels of government, and private sector activities affecting rural areas. Monitors, reviews, and summarizes relevant data and reports on research in assigned topic areas. Serves as principal resource person in these topic areas in preparation of decision papers, policy option papers, and draft legislation. Provides authoritative information, research expertise, and policy analysis, which identifies, interprets, and develops alternatives and options to complex questions of rural development policy. $20.40 per hour.

Rural Development Policy Analyst. Detailed to the Department of the Treasury to work on studies of local government revenue sources in order to provide a greater rural perspective and to provide some specialized assistance to the Treasury Department. $46,155.

Rural Development Policy Analyst. Within assigned topic areas, follows economic trends and conditions, the program activities of all levels of government, and private sector activities affecting rural areas. Monitors, reviews, and summarizes relevant data and reports on research in assigned topic areas. Serves as principal resource person in these topic areas in preparation of decision papers, policy option papers, and draft legislation. Provides authoritative information, research expertise, and policy analysis, which identifies, interprets, and develops alternatives and options to complex questions of rural development policy. $30,776.

Rural Development Policy Analyst (3). Gathers information, analyzes and summarizes it, under the guidance of the Staff Director and senior analysts. Assists in development of legislative proposals, decision papers, and policy option papers. One position filled at $17,824. Two vacant positions.

Secretary. Performs a variety of secretarial and clerical duties. $19,785.

Clerk (typing). Performs a variety of clerical duties. $17,645.

Clerk-typist. Performs a variety of clerical duties. $11,458.

Clerk-typist. Part-time, High School Cooperative Office Work Program. $4.47 per hour.

The positions in the Policy Coordination Staff are:

Director, Policy Coordination Staff. Directs a staff that is responsible for identifying emerging national, State, and local rural issues and needs; developing and implementing rural development policy guidelines that are formulated to provide proper government program direction for service to rural America; designing, maintaining, and monitoring a rural development strategy formulation program for preparing and annually updating the congressionally mandated rural development strategy; and providing leadership for the coordination of Federal implementation of the strategy. $52,262.

Policy Coordination Officer. Plans and provides staff technical leadership to the review and analysis of Federal legislation, regulations, programs, and budgets and their impact on rural development efforts, needs, and concerns. Develops information resources and networks. Prepares policy analyses, approaches, and alternatives; explores feasibility, costs, benefits, latent and intended consequences; and assesses political, institutional, and organizational contexts, constraints, and impacts. Makes recommendations for legislative proposals, policy, regulatory and program initiatives, changes, and proposals. Establishes and maintains liaison with a broad network of parties to the rural development process. $47,827.

Policy Coordination Officer. Plans and provides staff technical leadership to the review and analysis of Federal legislation, regulations, programs, and budgets and their impact on rural development efforts, needs, and concerns, with a special emphasis on rural elderly issues. Develops information resources and networks. Prepares policy analyses, approaches, and alternatives; explores feasibility, costs, benefits, latent and intended consequences; and assesses political, institutional, and organizational contexts, constraints, and impacts. Makes recommendations for legislative proposals, policy, regulatory and program initiatives, changes, and proposals. Establishes and maintains liaison with a broad network of parties to the rural development process. $50,345.

Policy Coordination Officer. On Intergovernmental Personnel Act assignment to the Utah Department of Agriculture, incumbent is assigned to develop and conduct a program providing rural development technical assistance to local governments and State agencies, private and public development organizations, minority developers and entrepreneurs. Also assigned to set up a formal referral system to help local officials, farmers, ranchers, development organizations, and financiers learn more about information and services available from USDA and gain access to private and all other developmental resources, information, and services. Incumbent is preparing recommendations for ORDP, based on his experience, that will assist the Office in rural policy development based on field experience. $51,774.

Policy Coordination Officer. Plans and provides staff technical leadership to the review and analysis of Federal legislation, regulations, programs, and budgets and their impact on rural development efforts, needs, and concerns, with a special emphasis on rural health issues. Develops information resources and networks. Prepares policy analyses, approaches, and alternatives; explores feasibility, costs, benefits, latent and intended consequences; and assesses political, institutional, and organizational contexts, constraints, and impacts. Makes recommendations for legislative proposals, policy, regulatory and program initiatives, changes, and proposals. Establishes and maintains liaison with a broad network of parties to the rural development process. $51,707.

Policy Coordination Officer. Plans and provides staff technical leadership to the review and analysis of Federal legislation, regulations, programs, and budgets and their impact on rural development efforts, needs, and concerns, with a special emphasis on rural housing and transportation issues. Develops information resources and networks. Prepares policy analyses, approaches, and alternatives; explores feasibility, costs, benefits, latent and intended consequences; and assesses political, institutional, and organizational contexts, constraints, and impacts. Makes recommendations for legislative proposals, policy, regulatory and program initiatives, changes, and proposals. Establishes and maintains liaison with a broad network of parties to the rural development process. $56,882.

Policy Coordination Officer. Plans and provides staff technical leadership to the review and analysis of Federal legislation, regulations, programs, and budgets and their impact on rural development efforts, needs, and concerns, with a special emphasis on rural community facilities issues. Develops information resources and networks. Prepares policy analyses, approaches, and alternatives; explores feasibility, costs, benefits, latent and intended consequences; and assesses political, institutional, and organizational contexts, constraints, and impacts. Makes recommendations for legislative proposals, policy, regulatory and program initiatives, changes, and proposals. Establishes and maintains liaison with a broad network of parties to the rural development process. $45,911.

Policy Coordination Officer. Plans and provides staff technical leadership to the review and analysis of Federal legislation, regulations, programs, and budgets and their impact on rural development efforts, needs, and concerns. Develops information resources and networks. Prepares policy analyses, approaches, and alternatives; explores feasibility, costs, benefits, latent and intended consequences; and assesses political, institutional, and organizational contexts, constraints, and impacts. Makes recommendations for legislative proposals, policy, regulatory and program initiatives, changes, and proposals. Establishes and maintains liaison with a broad network of parties to the rural development process. $57,759. (Currently on leave without pay.)

Policy Coordination Officer. Plans and provides staff technical leadership to the review and analysis of Federal legislation, regulations, programs, and budgets and their impact on rural development efforts, needs, and concerns. Develops information resources and networks. Prepares policy analyses, approaches, and alternatives; explores feasibility, costs, benefits, latent and intended consequences; and assesses political, institutional, and organizational contexts, constraints, and impacts. Makes recommendations for legislative proposals, policy, regulatory and program initiatives, changes, and proposals. Establishes and maintains liaison with a broad network of parties to the rural development process. $37,559.

Policy Coordination Specialist. Coordinates and prepares written documentation and other informational materials in preparation for and in follow-up to the Department's Rural Development Act oversight hearings, office budget hearings, and other pertinent legislative hearings. Responsible for development and maintenance of the office legislative history file on national rural development. Manages the information collection, review, assessment, and dissemination system of the national rural development strategy formulation. Prepares a variety of internal and external regular and ad hoc reports on such matters as personnel, staffing, facilities, finances, and management progress. Responsible for insuring that all of the information requirements needed by the Agency have been identified and that the appropriate information collection, storage, processing, and communication systems are developed and maintained. $37,943.

Rural Development Policy Analyst. Gathers information, analyzes and summarizes it, under the guidance of the Staff Director and senior analysts. Assists in development of legislative proposals, decision papers, and policy option papers. $17,824.

Rural Development Policy Analyst. Assists senior level staff specialists on their specific projects. Assists in developing and maintaining working relationships, conducting necessary studies and analyses, and monitoring and researching a wide scope of proposed legislation and existing and proposed regulations relating to rural development. $15,350.

Secretary (stenography). Provides a range of clerical and secretarial services for the staff. $21,388.

Secretary (typing). Provides a range of clerical and secretarial services for the staff. $14,390.

Secretary (typing). Provides a range of clerical and secretarial services for the staff. Vacant.

Clerk-Typist. Provides a range of clerical services for the staff. $11,458.

Clerk-Typist. High School Cooperative Office Work Program, part time appointment. Provides a range of clerical services for the staff. $4.47 per hour.

PERSONNEL

Question. Please provide for the Committee the personnel turnover rate for each of the past four years.

Answer. The Office was established in fiscal year 1982 and that is the earliest information we have. Based on the standard Labor Department measure the turnover rate--the total number of accessions and separations divided by the average number of filled staff positions--that year was 53. In fiscal year 1983 it was 53 also. In fiscal year 1984, it was 66 and we do not have figures yet for the current fiscal year. Most turnovers have been the result of accession and separation of temporary personnel and work/study people who have worked on special projects reflecting the changing issues with which the Office has dealt.

Question: Fifty-five percent of your staff is ranked at GS-11 or above, and the average salary of a GS position is $31,474. Why does your office have a need for such a high percentage of comparatively high-paid employees?

Answer: Ours is a policy office which employs several highly graded people who were selected on the basis of experience, education, and proven capacity to respond to assignments in a well-informed, creative way. Most were transferred into the Office from the Farmers Home Administration along with certain functions they were performing when the Office was created. Our staff must deal with high-level officials in other Federal agencies, State and local governments, and in the private sector as well as sophisticated people in the research community. Among our professional employees are four with Ph.D.'s and six with M.A.'s.

OFFICE OF TRANSPORTATION

STATEMENT OF MARTIN F. FITZPATRICK, JR., DIRECTOR

It is a pleasure to appear before this Committee today to present the budget program goals of the Office of Transportation for FY 1986. With me today is Wesley R. Kriebel, Deputy Director of the Office of Transportation. In the next few minutes, I shall give a brief summary of OT's major accomplishments in the past year, and will then outline OT's FY 1986 streamlined program initiatives and the overall budget to accomplish them. Further details of our successful efforts in providing innovative solutions to meet American agriculture's transportation needs are available for this Committee, if you so desire.

Selected Accomplishments...FY 1984

This past year has been an eventful year in terms of the changes evolving from Federal deregulation in many areas of railroad pricing and service. For some railroads, there has been a realization of the benefits of deregulation; for some, there has been a concern that the combination of deregulation and megamergers may eventually destroy the smaller or regional railroads; and for the agricultural community, there has been a recognition that deregulation has both its advantages and disadvantages. Our involvement in the past year has been primarily focused upon these changes, identifying and clarifying those events or issues which may have either a positive or a negative effect upon agriculture. In particular, we conducted one-day transportation workshops in grain producing areas in the Midwest, Northwest and Southeast, to improve the understanding by grain shippers, farmers and receivers, of the Staggers Rail Act and to receive statements from shippers on how rail deregulation has affected them. The work shop proceedings have been analyzed and OT has published a report with recommendations. That report updates an earlier assessment on this important matter.

During Fiscal Year 1985, much of the transportation industry was plagued with a worrisome degree of overcapacity. In a real sense, this benefited most shippers, including agricultural shippers, through lower costs and improved service levels. There is, however, a general belief that as the supply of equipment becomes more balanced with demand, rates will climb and many in agriculture fear railroads may then determine which markets agricultural shippers may ship to, as well as determining who may ship and who may not.

In FY 1986, OT will continue to monitor these and other critical issues and will make recommendations as appropriate. We firmly believe, Mr. Chairman, that our efforts to monitor and articulate the continuing and unfolding response to rail deregulation have provided a valuable service to agriculture and to the Congress.

In addition to rail transport, rural America needs adequate local roads and bridges to help meet its transportation needs, to assure that agricultural products move quickly and efficiently from the farm to America's dinner tables, and to support the general economic goals of our rural areas.

As you well know, rural transportation systems throughout the country today are poised at a critical juncture. Finding sources to fund the maintenance of these roads and bridges--many of which are currently in desperate need of repair -- will be an increasingly important priority for rural and agricultural states, especially as available revenue decreases.

In December, the Office of Transportation, the Illinois Department of Agriculture, and the Illinois Cooperative Extension Service sponsored the Mid-America Rural Road and Bridge Conference as the final part of a four-state study that aims to define specific rural transportation problems; present innovative solutions to those problems; and further the cooperation of transportation and agricultural officials in working together to implement those solutions.

OT has facilitated cooperation among the diverse groups involved in this issue--state and local governments, national organizations, state extension services, academics, and a host of others. All of these people recognize the need to curtail the further deterioration of the rural infrastructure -- and to plan for its long-term upkeep and improvement.

The four-state study and the conference represent a first step in addressing this serious issue. Rural transportation development will be one of OT's priority programs in the coming years.

At this point, I have focused on domestic transportation issues. But one critical aspect of agricultural transportation -- and one that will be even more critical in the future -- is exports.

I don't need to remark on the critical role agricultural transportation plays in this regard. And I assure you that exports are one of this office's foremost concerns. I'd like to review at this point several projects we have underway at this time to enhance American agricultural exports.

In recent years Mexico has purchased millions of tons of U.S. agricultural products. In 1984 alone, they purchased nearly eight million metric tons of grain -- mostly corn. Approximately 40 percent of this traffic crossed into Mexico via rail at several border crossings. The remainder moved by vessel.

OT has become active in efforts to improve the movement of food exports to Mexico. For example, we are the lead agency within USDA for dealing with the physical distribution aspects of moving grain to Mexico, coordinating the land transport activities of several agencies within and outside USDA.
Under the terms of a current supply agreement with Mexico, a transportation working group -- made up of U.S. and Mexican officials -- has coordinated food exports to Mexico. The transportation group meets several times a year to discuss matters related to these shipments and to resolve any problems that might arise.

Both countries have designated border coordinators who carry out the day-to-day activities of these shipments. This has served to successfully ensure a minimum of congestion and delay at the border crossings, prompted the quick return of empty rail cars to the United States, and generally has assisted with customs, fumigation, and rail operational problems.

In fact, the international arena continues to become an increasingly important factor in OT's mission. During the past year, for example, we surveyed 13 Middle East port facilities to determine the extent to which their handling capabilities and infrastructures can accommodate U.S. agricultural exports as grain, canned goods, meats, and fresh and frozen fruits and vegetables.

We also joined a team of U.S. agricultural industry representatives to conduct seminars in Guatemala, El Salvador, and Honduras to acquaint local importers of American agricultural products with the cash and futures marketing practices of the United States.

In other projects, we've studied the roles of transportation entities in export trading companies. As part of the Caribbean Basin Initiative, we've discussed the transportation of perishable commodities by ocean and air. And we've assisted the Agency for International Development(AID) by providing information to develop a tracking system for food shipments from the United States to African countries plagued by famine.

OT also administers the U.S. participation in the Agreement on Transport of Perishables (ATP). This program, to go into effect in FY 1985, is designed to provide testing and certification of refrigerated containers for U.S. manufacturers and operators who need certification for operation of such equipment in Europe.

I've covered a few current projects thus far and the last area I'd like to touch on is our technical research accomplishments. This work is often conducted in cooperation with the private sector. An example of this arrangement is the livestock rail car project. Our prior research on a rail cattle car equipped with an onboard feed and water system for animals has led to testing of a new 40-foot container developed by commercial interests. Two of the double-decked containers were placed on a rail flatcar and loaded with 100 feeder calves in Winter Haven, Florida, and shipped to Amarillo, Texas. The trip took about 48 hours. During the shipment, OT personnel monitored the health and activities of the animals via closed circuit TV and recorded measurements of the in-transit environmental conditions. Each container is equipped to hold up to a 12-day supply of feed and water. The corner fittings are installed on the containers so they may be handled on and off ships.

Another area of successful cooperative research with industry is that of the cryogenic railcar for the transport of frozen foods. This research was one of 10 refrigerated developments nominated for the "Innovation of the Year" Award in Copenhagen, Denmark. The American Frozen Food Institute, the International Association of Refrigerated Warehouses and OT cooperated in the research and development of the cryogenic railcar. The railcar utilizes liquid carbon dioxide, a petroleum byproduct, to refrigerate loads of frozen food and offers a cost effective alternative to mechanical refrigeration.

We're proud of these achievements and sincerely believe that they exemplify a desirable partnership arrangement between a public agency and commercial interests.

FY 1986 Projects

In keeping with the President's objectives of reducing the deficit and trimming federal programs of unneccessary expenditures, the Office of Transportation plans to redirect much of its human and financial resources during FY 1986.

I am requesting an appropriation of $2,063,000 for fiscal year 1986. Although this represents a reduction of $479,000 from our fiscal year 1985 appropriation, the level of funding will provide an adequate resource base for us to carry out the Department's transportation responsibilities. In FY 1986, OT will continue to provide transportation policy analysis and technical assistance programs, engage in technological research, assess the economic impacts of transportation legislation and progress our work in rural transportation.

Specifically, in FY 1986, we expect to streamline our capability for responding effectively to requests for assistance on agricultural transportation matters of major significance. This capability will rely on the use of electronic data processing technologies to provide more timely, cost effective responses to requests on major issues such as rail line abandonments, contracting with railroads, rail costing procedures, and ways to interpret and resolve market dominance and captive shipper issues.

It is important that agriculture's point of view be presented in proposed transportation legislation, trade agreements and export policy matters. For example, the increased transportation costs due to the imposition of user charges on our inland waterways, ports and harbors either have to be absorbed domestically or added to the foreign market price for the commodities involved. A key question to be answered is, to what extent can such increased costs continue to be absorbed, and if so, by whom, i.e., producers, carriers, or middlemen. A second key question for which answers will be sought is, to what extent can such costs be passed on to the international markets, and if so, how would the price increases affect our competitive position?

We anticipate that the answers to these types of questions will require analysis which incorporates the movements, costs, and charges of major agricultural commodities from production areas to domestic and overseas markets. We hope to develop a research methodology using computer capability which will enable us to determine with greater precision the impacts of user fees, transport rate changes, cargo reservation practices and other aspects effecting our ability to compete in world markets.

In FY 1986, OT plans to continue to monitor, assess and inform exporters of agricultural commodities on the effects of recent maritime legislation and other policies of a bilateral and multi-lateral nature. An assessment of the transportation infrastructure of selected foreign markets is also envisioned that would include the market potential for handling increased quantities of food and fiber. Agreements with appropriate entities would allow OT surveys of ports, storage, transportation and other logistics facilities and systems for efficient distribution of U.S. agricultural exports.

As discussed before, increasingly local officials are asked to modernize or improve the structural quality of existing roadway facilities to accommodate larger trucks. Moreover, analyses of the current population statistics indicate that during the 1970's rural and small town areas grew more rapidly compared to metropolitan areas.

These changes and challenges necessitate, now more than ever that governments, including the Federal government, continue to address rural transportation needs. In my view, however, such efforts should be guided by an overriding partnership with local or area leadership. One of our continuing functions in 1986 and beyond will be liaison work with various agencies that deal with transportation programs at the local level. USDA's Office of Transportation is sensitive to rural transportation needs, and it has developed excellent working relationships with agencies and farm organizations to ensure that programs and planning assistance are appropriate and targeted to meeting rural needs.

In a recent action by the Secretary of Agriculture, the Traffic Management Branch of Agricultural Stabilization and Conservation Service was transferred into the Office of Transportation. This transfer will further strengthen the Department's ability to effectively manage its transportation responsibilities by consolidation of those activities. One of the primary functions of this small group is to provide transportation rates necessary in formulating county loan prices for grain producers. This unit also provides rates for other agencies engaged in economic analysis or research.

While continuing to provide the Department with the necessary transportation rates for the farm programs, we plan to utilize some of these people in the broader areas of technical assistance, regulatory cases, rail abandonments, and in the development of our Grain Transportation Database System.

FY 1986 Budget Request

In the past 6 years that the Office of Transportation has been in existence, our goal has been to provide a coherent and unified approach in dealing with the many transportation issues affecting the rural economy. I feel very confident that the Department has exceeded that goal in providing farmers, agri-business, transportation firms, rural officials, exporters, domestic food processors, wholesalers, and retailers effective solutions and alternatives to their problems.

The Office of Transportation continues to develop and recommend agricultural transportation policy and to outline the most effective course available to the Department in dealing with transportation issues. Furthermore, greater managerial efficiency is being realized, largely through an increased commitment and involvement by the staff in electronic data processing programs. A more effective project management process that encompasses a computerized management information system is an additional achievement. I am proud of our accomplishments during these few years and I believe we will continue to provide a valuable service to the agriculture community.

With that goal in mind, I am requesting an appropriation of $2,063,000 for fiscal year 1986. This level of funding will enable us to provide an adequate resource base to effectively and efficiently fulfill the Department's transportation responsibilities.

Mr. Chairman, this completes my prepared statement. I will be happy to respond to any questions you or other members of the Committee may have.

QUESTIONS SUBMITTED BY SENATOR COCHRAN

OBJECT CLASS ITEMS

Question: Sixty-four percent of your personnel are ranked GS-11 or higher, with an average GS salary of $32,932. Why does your office need such a high percentage of relatively high-paid employees?

Answer: The Office of Transportation is uniquely structured to provide a coordinated, multidisciplinary response to the rapidly changing transportation scene. Our traffic managers and transportation specialists daily provide expert technical assistance to every facet of the agricultural, rural, and transportation sectors, as well as represent the views of the Secretary in numerous proceedings. This Office was established to provide a focal point for all USDA transportation matters. The average grade is high due to the large number of professional specialists that are needed. Support personnel are mostly secretarial with administrative support services provided by another agency in USDA.

Question: What are the "other services" you plan to cut from $473,000 to $250,000?

Answer: The Office of Transportation plans to decrease other services by $223,000 in FY 1986. This includes:

Contractual services performed by other Federal agencies	$140,000
Cooperative agreements	36,000
ADP Processing Services	11,000
Training	15,000
Repairs, maintenance of equipment	5,000
Miscellaneous services	16,000
Total	$223,000

Question: Why are you not cutting other management functions, such as travel?

Answer: All Office of Transportation personnel are located in the Washington, DC metropolitan area. One of OT's major function is to offer technical assistance to farmers, shippers, producers, rural communities, State and local governments, and agribusiness and their associations. This often requires participation in meetings with research groups, cooperatives and State governments. In addition, the Office of Transportation has a market development function which necessitates travel to Mexico and other foreign nations in efforts to facilitate the transportation of our exports.

Another major function is technological research. This often necessitates research personnel traveling with shipments to monitor the effects of different conditions and to evaluate the test shipments on arrival at their destinations. They are also required to travel to consult with officials in private industry who may be providing assistance on projects and to collect data for economic analysis. With no OT employees in the local and rural areas, employees located in the DC area must travel extensively to those areas where assistance is needed. Therefore, travel is extremely important and a decrease in funds for travel would decrease the amount of technical assistance OT is mandated to provide to the rural community. The other object classes that were not reduced in FY 1986 - communications, utilities and other rent; printing and reproduction; and supplies and materials are at the miniumum level to satisfactorily perform agency operations.

ECONOMIC RESEARCH

Question: Why do you do economic research when the Economic Research Service is set up to do such research? Also, why do you do other research and testing instead of having the Agricultural Research Service do it?

Answer: The Office of Transportation was formed to bring together various transportation related activities previously scattered throughout USDA to serve better the responsibilities of the Department with respect to transportation. Specifically, the Secretary's delegation of authority to OT includes the following:

"(3) Apply economic research findings in the analysis of agriculture transportation issues.

(4) Serve as the focal point for all Department transportation matters including development of policies and strategies."

OT is more a consumer than a producer of economic research--a client of the research community. We attempt to apply economic research principles and findings to the analysis of transportation policy issues as they may affect agriculture. We also have a relatively stronger tie with industry as compared with ERS, which is more closely aligned with the academic community.

When OT was organized the distinction between long term research and short-term analysis was recognized. The former activities remained with ERS, the latter with OT.

OT's work on transport technology is not exclusively research oriented, but includes regulatory and standards aspects. OT's present Transportation and Packaging Research Branch had been in ARS prior to OT's formation, but was transferred out of ARS to achieve organizational efficiencies.

CARGO PREFERENCE DECISION

Question: How will the recent court decision on cargo preference affect agricultural exports?

Answer: It has been recently decided in Federal court that blended credit (a combination of interest-free direct credit and CCC's credit-guaranteed programs) would be subject to U.S. cargo preference laws. This decision would force 50 percent of exports under this program to be carried on U.S.-flag vessels at substantially higher costs per ton.

After this decision, USDA immediately suspended $536 million in blended-credit sales to Iraq, Egypt, Morocco, and Tunisia. The slight interest rate advantage (estimated at $6 per ton) would be exceeded by the freight differential that would now have to be paid. That differential is estimated by FAS to be $20-$30 per ton for wheat and $50-$60 per ton for flour. The credits were initially authorized for the sale of more than 3 million tons of wheat and about 125,000 tons of flour.

At this time, Secretary Block has yet to decided if the blended credit program will continue or not.

BUDGET FOR RAILROAD ISSUE

Question: What percentage of your budget is spent on railroad-related issues?

Answer: Approximately 80 percent of our funds are devoted to rail related issues. There are over 15,000 grain elevators in the 48 contiguous states, nearly all served by rail. Piggyback movement of perishable and packaged products is growing rapidly. On a ton-mile basis, rail is far and away the dominant mode in agricultural transportation. It is also the most dynamic mode. For these and other reasons, we devote a substantial share of our resources to promoting agriculture's best interest in rail-related issues.

CENTRAL AMERICAN SEMINARS

Question: Why was your office involved in seminars in Central America which taught cash and futures marketing practices of the United States?

Answer: The Foreign Agricultural Service requested that the Office of Transportation provide an "ocean freight specialist who can explain how ocean freight can be arranged, recent movements in prices, and current progress in establishing a futures contract for ocean freight rates" to join their seminar team.

The following material was presented to importers in El Salvador, Guatemala, and Honduras:

o Background on the Office of Transportation including the capabilities and assistance that can be expected from the International Program Area;

o A market assessment of the liner and ocean charter markets and short-term future projections of supply and demand;

o A discussion of ocean freight rates and the factors affecting the level of rates between the U.S. and individual Latin American countries;

o An update, explanation, and uses the Ocean Freight Rate Futures Contract to be offered by the Baltic Exchange on May 1, 1985; and

o Names and addresses of U.S. contacts, private and government publications, and other information which would be useful to local importers.

USER FEES

Question: Are user fees charged for the testing and certification of refrigerated containers under the Agreement on Transport of Perishables?

Answer: Yes, OT anticipates collection of a fee covering administrative costs of certificate issuance, but not testing. The ATP program, expected to be in operation in 1985, consists of two parts. The first part is the authorization of private agents to conduct testing in accordance with prescribed procedures. OT does not anticipate charging a fee for this authorization. The actual cost of testing will be borne by equipment owners requesting the service. The second part of the program is the issuance of the certificate to the equipment owner by USDA on the basis of documentation that testing requirements have been satisfied. For this there will be a fee.

COOPERATIVE RESEARCH WITH INDUSTRY

Question: In your statement, you discuss cooperative research with industry.

a. How much of the cost of these projects does OT bear?
b. Would this research take place regardless of Federal involvement?

Answer: Determination of the Federal share of total project cost on most cooperative projects in imprecise. Frequently, contributions by industry are in the form of equipment or facilities use, foregone or reduced rates, in-kind services, and (most difficult of all to estimate) assumption of risk or liability on products or services.

A good example is the livestock rail car project, which has had substantial private funding. Since 1982, the National Cattlemen's Association including the Iowa and Texas Cattlemen's Association; Moyer Packing Company of Souderton, Pennsylvania - the largest packer east of Chicago; Iowa State, Pennsylvania State, and Texas A & M Universities; Ortner Freight Car Company, Massco, a container company; Wilson Trailer Company; the railroads--Burlington Northern, CSX, Conrail, Milwaukee, Norfolk Southern and Seaboard; Ralston Purina; Land of Lakes Feed Companies; and others have worked together giving time and financial resources to carry out this project. The goals are to expand markets more efficiently by transporting cattle longer distances, both domestically and overseas and to increase profits to cattle producers.

In FY 1984, the last year for which OT estimated Federal and non-federal share of project costs on a project-by-project basis, the Federal share totaled about two-thirds, the non-federal share, one-third.

As to whether this kind of research would take place regardless of Federal involvement, no doubt some would; but clearly some would not. In many cases the subject of research or the necessity for it is expressly Federal in nature, concerning regulation of health or humane treatment of animals. In other cases, Federal involvement provides the objective environment in which private parties can get together with a reduced sense of competitive rivalry. Finally, there is the public ownership of resulting information and the commitment on the part of USDA to disseminate research results for public benefit.

ASCS TRAFFIC MANAGEMENT FUNCTION TRANSFER

Question: The Traffic Management function of ASCS has been transferred to OT. During fiscal year 1985, ASCS transferred $301,000 and 6 staff-years to OT for this purpose, with full-year fiscal year 1986 costs expected to be $303,000. You are proposing a $479,000 decrease from fiscal year 1985 appropriations. With this new responsibility, won't this really be a $782,000 cut?

Answer: OT's FY 1986 request does not include the cost of the traffic management function because the transfer from ASCS to OT occurred at the time the FY 1986 budget was being finalized. ASCS will transfer funds to OT to cover the full-year cost in FY 1986.

Question: Many of the responsibilities under this function seem to be similar to your current responsibilities. What additional responsibilities will your office have now that you will be performing this function?

Answer: The Traffic Management Branch (TMB) maintains one of the few remaining tariff files in the Federal Government. Included in this tariff file is a well stocked inventory of grain and other agricultural commodity tariffs. Through the use of this tariff file, TMB provides freight rates and technical transportation services to Washington ASCS offices and other USDA agencies. These services are also provided for non-USDA offices--State and land grant colleges, congressional offices, and trade associations. TMB verifies motor carrier freight rates and tariff authorities at the ICC, performs post audits of freight waybills when requested by the ASCS Kansas City office, and interprets and calculates assessorial charges for rail services in addition to freight rates. Other responsibilities of TMB include technical transportation advice on Commodity Credit Corporation contracts, Uniform Grain Storage Agreements, Uniform Rice Storage Agreements, etc.

FEDERAL GRAIN INSPECTION SERVICE

STATEMENT OF KENNETH A. GILLES, ADMINISTRATOR

I appreciate the opportunity to appear before this Committee today. My presentation will include a description of the overall Federal Grain Inspection Service--FGIS--program, and emphasize our continued efforts to provide a cost effective grain inspection and weighing service.

Our Fiscal Year 1986 request reflects a continuation of our effort to assist the Administration in reducing Government spending, reducing the size of Government, and expanding user fees where appropriate. Under current law we are requesting $43.7 million for Fiscal Year 1986. User fees will account for $36.9 million and will fund all of our inspection and weighing activities. Our appropriation request totals $6.8 million for standardization and compliance as well as foreign monitoring activities. However, we are submitting user fee legislation which will recover, after a three year phase-in period, all costs of FGIS. For Fiscal Year 1986, appropriated funds would be reduced by $2.2 million to $4.6 million, while the revolving fund would increase by $2.2 million to $39.1 million.

The FGIS' mission is to provide for the establishment of official U.S. standards for grain, to promote the uniform application of standards by official inspection personnel, to provide for an Official Inspection System for grain, to regulate the weighing and certification of the weight of grain shipped in interstate or foreign commerce and to carry out the delegated responsibilities under the Agricultural Marketing Act of 1946. The inspection and weighing activities are funded by a user fee cost recovery program. These activities, which are mandatory at export ports and permissive in the domestic area, comprise the national "Official" Inspection System.

This system encompasses approximately 4200 employees, 750 of whom are FGIS field personnel who provide the direct on line mandatory inspection and weighing of grain at 59 export elevators. Eight delegated States employing approximately 900 employees provide mandatory official services at an additional 31 export elevators under direct Federal oversight. In the domestic market, permissive inspection and weighing services at inland locations are performed by 2400 licensed inspectors, weighers, samplers and technicians employed by 82 designated State and private agencies, also under Federal monitoring.

During the past fiscal year, we have been successful in our efforts to become a financially self-sufficient Agency. FGIS derives approximately 85 percent of its revenues from user fees charged for its inspection and weighing services. Revenues received are related to requests for our services which in turn depend on the volume of grain exports. During Fiscal Year 1984, increased exports, combined with Agency cost efficiency measures to yield a positive operating margin of $2 million. This margin, together with accounting adjustments for prior year operations, enabled FGIS to maintain its desired three month operating reserve. FGIS was able to repay to the Treasury $2 million of the $6 million supplemental appropriation the Agency received in November of 1983. We have always considered this supplemental appropriation to be a line of credit to be used if needed and expect to retire the balance within the next two years. The Agency will continue its efforts to deliver no-frills cost effective and financially self-sufficient services.

REAUTHORIZATION

The Congress enacted legislation effective October 1, 1984, to amend the Sunset provisions of the Omnibus Budget Reconciliation Act of 1981 and reauthorized FGIS' program authority and functions through September 30, 1988. The new law extends FGIS' authority to collect user fees to cover the administrative and supervisory costs of grain inspection and weighing;

permits the deposit of fees in interest-bearing accounts; increases the limit on administrative and supervisory costs from 35 percent to 40 percent of total costs; extends the requirement for an advisory committee to advise the Administrator on implementation of the Act; extends the authorization for appropriations for compliance, standardization, and foreign monitoring activities; and prohibits the Secretary from establishing a new class of wheat designated "Red Wheat."

During the legislative hearings, grain industry representatives supported the reauthorization and commended FGIS for the enhanced efficiency, responsiveness and capability shown over the past three years. The industry strongly endorsed continuation of the advisory committee and a limit on Agency expenditures for supervision and administration.

PROPOSED LEGISLATION

FGIS will propose legislation to require user fee funding for standardization, compliance, foreign monitoring, and advisory committee activities. This legislation is a continuation of the Administration's efforts to reduce the Federal deficit and our efforts to decrease our dependence on appropriated funds. Although the general public receives some benefit from these standardization and compliance activities, the direct beneficiaries are the producers, merchandisers and others who participate in the marketing of U.S. grains and related commodities. Therefore, it is appropriate that these costs be borne by the identifiable group that benefits from this Government service. User fees will be assessed and will be based on the costs of the service provided. To ensure an orderly transition to full-cost user fee funding, FGIS will implement this proposal over a three year period, at the rate of one-third each year.

We recognize that this proposal may initially cause some apprehension within the grain industry. However, the industry has recognized and supported our previous and continued efforts to provide a cost effective user fee funded service. FGIS dependence on user fee funding has increased from 59 percent in Fiscal Year 1981 to 85 percent in Fiscal Year 1985. During this time, FGIS has improved both its service and its public perception as a governmental agency. We will continue to interact with the industry and solicit its support.

SAFETY

Within the Department's grain elevator safety program, FGIS is given the role of reporting explosion incidents. We note that during Fiscal Year 1984, there were 20 explosions in grain handling facilities resulting in 29 personal injuries and 9 deaths. No Federal employees were involved. Increased awareness of explosion risk has led to interaction among government, industry, union and trade associations. Substantial research and education efforts have improved dust control procedures and explosion prevention methods. To combat explosions, the industry is adopting new technology and new elevator design and many companies have retrofitted and modified existing facilities.

Secretary Block in 1982 established a grain storage, handling and processing safety program and a safety subcommittee to monitor activities and to promote safe grain movement. This subcommittee acts as a clearinghouse for elevator safety information. During 1985 the subcommittee will utilize the National Agricultural Library in Beltsville as an international repository for research on elevator safety. In addition, the Cooperative Extension Service is working with industry experts to develop educational programs aimed at improved grain handling safety.

PROGRAM AND FINANCIAL INFORMATION

During Fiscal Year 1984 FGIS modified its Delegation of Authority agreements with California and Washington. The modification, under which the states assume increased responsibility for official inspection and weighing services, is designed to improve the efficiency and economy of the national inspection system. After a one-year trial period, this modification will be evaluated and considered for the remaining 6 delegated states. The new agreements lowered FGIS' operating costs.

An overall fee adjustment was implemented August 1, 1984. Its objective was to bring revenues in line with costs of individual program services. Supervision fees were decreased by 35 percent while fees charged for inspection and weighing services as well as rice and commodity inspection were increased. Interested parties were provided an opportunity, through public hearings, to express their views on the fee changes. Through the Advisory Committee and other contacts, we continue to keep industry informed of our financial condition.

During Fiscal Year 1984 our financial condition improved with an increase in grain export volume, corresponding revenues and fee adjustments made during the year. Significantly, total costs to the trust fund declined compared to the previous year. We will continue to effectively and efficiently utilize our veteran staff. Grain export inspections totaled 115.2 million metric tons, an increase of approximately 1 percent over 1983 levels. In Fiscal Year 1985, the quantity of officially inspected grain exports is expected to remain about the same as Fiscal Year 1984.

FGIS remains concerned about the possible incidence of ethylene dibromide (EDB) in grain. Last year I attended and participated in several Congressional hearings on the matter. We continue to monitor samples to detect any EDB residue and on request have tested individual shipments for applicants and foreign buyers. The incidence of EDB has declined substantially and generally is below EPA action levels.

We have recently updated our automated data processing capabilities and have used this as a management tool to monitor the quality of U.S. wheat shipments. While we have detected some concerns among foreign buyers, we feel that these are primarily a perception problem. Our research indicates that the quality of our wheat exports is very favorable and well within the limit for meeting the No. 2 grade. This is significant because 95 percent of wheat exports are No. 2 or better. Moreover, our International Monitoring Staff reports that formal and informal complaints continue to represent only a fraction of one percent of the total exports. However, we will continue to monitor this area as we are exporting into a competitive and highly unstable export market where perceptions are important.

In the research area, FGIS presently is interacting with the Agricultural Research Service (ARS) on a number of projects. The agencies are conducting research in the use of x-rays and image analysis to detect insects in grain and on the effectiveness of in-transit fumigation of super ships to combat insect infestation. FGIS and ARS have also issued research agreements to find new commercially acceptable methods of classing wheat. We are also soliciting research proposals to study methods to detect foreign odors and moisture in grain, the impact of toxic weed seeds in grain and a rapid procedure for separating whole kernels from broken kernels, foreign matter and other grains. Finally, our new technical center for research and quality control in Kansas City is scheduled to open February 1 of 1986.

FISCAL YEAR 1986 REQUEST

Total funding for FGIS is estimated to be $43.7 million in Fiscal Year 1986. This consists of $6.8 million in appropriated funds for standardization and compliance activities and $36.9 million to be collected from user fees for inspection and weighing services.

We are requesting no new program dollars in either our appropriated or trust fund accounts. We are submitting requests to rescind $94 thousand from our Fiscal Year 1985 appropriation and are decreasing our Fiscal Year 1986 appropriated request by $174 thousand from our 1985 base. While we are requesting $100 thousand for increased pay costs absorbed during Fiscal

Year 1985, this will be offset by an overall 5 percent salary reduction of $225 thousand and a savings of $49 thousand in management initiatives. Our staff year ceiling is now 950.

ADVISORY COMMITTEE

We have continued to work closely with our advisory committee the past year. It offers an important source of advice and assures that FGIS receives industry's view as the Agency formulates policy affecting the grain industry. Among the issues addressed by the committee were proposed changes to the grain standards, insect infestation, appeals and reinspections, fee adjustments, corn moisture measurements, the Federal/State cooperative program, our financial condition, and the reauthorization of the Agency.

CLOSING

Mr. Chairman, this concludes my testimony. I would be glad to answer any questions you or other members of the Committee may have.

QUESTIONS SUBMITTED BY SENATOR COCHRAN

GRAIN QUALITY

Question: What are you doing to improve the quality of grain being shipped to foreign markets?

Answer: FGIS' role is one of an impartial third party inspector of grain. We inspect grain in accordance with established U.S. standards. By adopting new technology and more objective testing methods, we can improve the accuracy and reliability of the national inspection process. This provides the grain industry with the necessary information to better determine grain quality and, in turn, improve export grain quality. We received 24 complaints, representing less than one percent of the 115.2 million metric tons of grain exported in fiscal year 1984. During the same year, our research efforts were directed, in part, toward the accuracy of the diverter-type sampler at high grain flow rates, the objective determination of wheat classes, the objective determination of live and dead hidden infestation in wheat, and a rapid inspection procedure for determining sunflower seed oil content. We have established three subcommittees within our advisory committee to review export grain quality. In fiscal year 1984, the Insect Infestation Subcommittee was organized. During fiscal year 1985, both the Dust Handling Subcommittee and the Corn Moisture Subcommittee were established.

Question: What effect has the perception that a lower quality of grain has been shipped recently had on American grain exports?

Answer: While we are aware of concerns among foreign buyers about export grain quality, exports in fiscal year 1985, are three percent greater than the comparable period of last year. Our research indicates for example, that the quality of wheat exports is well within the limits of the No. 2 grade which accounts for approximately 95 percent of U.S. wheat exports.

GRAIN INSPECTION

Question: Will closer inspection be necessary to restore foreign confidence in our grain? If so, will it require additional funding over the amount appropriated for this fiscal year or the amount you have requested for next fiscal year?

Answer: Closer inspection alone cannot overcome the problems attributed to reduced quality which resulted from unusually poor growing and harvesting conditions. Planned funding levels for fiscal years 1985 and 1986 are adequate to address these activities.

USER FEES

Question: Last year, you testified that the balance between appropriated funding and user fee funding for various FGIS responsibilities was appropriate.

Please provide your arguments for and others' arguments against requiring grain inspection to be 100% funded by user fees.

Answer: There are two views on this subject. The Department's position is that the direct beneficiaries are the producers, merchandisers, and others who participate in the marketing of U.S.

grains and related commodities and who utilize our standardization, compliance, and international monitoring services. Therefore, it is appropriate that the costs of these services be borne by the identifiable group who receives an economic benefit from our services. The other position, arguing against 100 percent user fee funding, maintains that since the general public benefits from FGIS' appropriation-funded activities of standardization, compliance, and international monitoring, the costs of these programs should be funded by tax dollars.

Question: Please show, in dollar terms, how user fees will be phased in over three years, by providing the total cost of the program and the amount provided by user fees for each year.

Answer: FGIS has $6.9 million in appropriated funds budgeted for fiscal year 1985. A proposal has been made to fund all of FGIS' programs by user fees. Therefore, in each of the next three fiscal years, FGIS will begin charging user fees to raise approximately $2.3 million for program functions presently being funded by appropriations. The following table illustrates this proposal.

FEDERAL GRAIN INSPECTION SERVICE BUDGET
(in thousands of dollars)

	Fee Supported	Appropriated	Total Budget
FY 1985	$36.9	$6.9	$43.8
FY 1986	39.1	4.6	43.7
FY 1987	41.4	2.3	43.7
FY 1988	43.7	0	43.7

MANAGEMENT SAVINGS

Question: Personnel is the only area reduced in your budget, according to the "object classification" table. Were there no management savings to be found? If so, what were they?

Answer: Although the "object classification" table shows management savings resulting from pay reductions, additional savings were achieved. For instance, between fiscal year 1984 and fiscal year 1985, FGIS saved approximately $300,000 in agency support costs. In addition, we continue to scrutinize our costs of travel, printing, rent, space and overtime with the goal of achieving further savings in these areas.

USER FEES

Question: If user fees are levied, will the users be charged only for the actual service, or will fixed costs be computed into the fee?

Answer: The users will be charged for both the fixed and variable costs of providing services.

Question: Was any consideration given to requiring 100% user fees for voluntary inspection and not for mandatory inspection?

Answer: No. Both mandatory and voluntary inspection services are totally funded by user fees. Only the standardization, compliance, international monitoring and advisory committee functions are supported by appropriated funds. When these activities become user fee supported, user fees for all agency services would be adjusted to recover the program costs formerly funded by appropriations.

Question: If user fees are implemented further, will they also increase for grain inspected by delegated state agencies?

Answer: In August 1984, FGIS lowered the user fees charged to delegated states which are authorized to inspect and weigh grain at certain export port locations. We are currently considering an additional decrease in fees charged to supervise delegated and designated agencies. However, in the long run fees must recover costs and upward adjustments may have to be considered.

SUPPLEMENTAL APPROPRIATION

Question: In fiscal year 1984, you requested an appropriation to recapitalize the revolving fund, pledging to repay the funds ($6 million) to the Treasury over a three-year period.

Have you repaid any of these funds?

Answer: Yes. An initial repayment of $2 million was made in September 1984.

Question: Do you still expect to repay the balance?

Answer: Yes. Based on fiscal year 1985 program operations, we anticipate repaying an additional $2 million in August 1985. This action would leave the remaining $2 million for repayment during fiscal year 1986.

GRAIN ELEVATOR EXPLOSIONS

Question: Please give some detail concerning grain explosions in fiscal year 1984 and thus far in fiscal year 1985.

Answer: The following tables provide details of each incident during fiscal years 1984 and 1985.

SUMMARY OF REPORTED GRAIN DUST EXPLOSIONS
FISCAL YEAR 1984

No.	Location	Date	Injuries/Deaths		Probable cause
1.	Poitz, Inc. Yuma, Colo.	Nov. 2, 1983	0	0	Suspect bearing failure in the Boot
2.	Prairie Grain, Inc. East Bernard, Tex.	Nov. 28, 1983	0	0	Undetermined
3.	Rivards Quality Seeds Argyle, Minn.	Nov. 30, 1983	2	0	Originated in hammer mill
4.	Darwin Farmers Ele. Darwin, Minn.	Dec. 28, 1983	2	0	Undetermined

SUMMARY OF REPORTED GRAIN DUST EXPLOSIONS
FISCAL YEAR 1984-Continued

No.	Location	Date	Injuries	Deaths	Probable cause
5.	Lubbock Feed Lots Mill Lubbock, Tex.	Jan. 20, 1984	1	0	Machinery spark
6.	Epstein-Harris Feed Yard Fort Morgan, Colo.	Feb. 4, 1984	1	0	Metal in grinder
7.	Norman-Hartwell Grain Norman, Nebr.	Feb. 12, 1984	0	0	Undetermined
8.	Owensboro Grain Co. Owensboro, Ky.	Feb. 20, 1984	1	0	Soybean processing
9.	Castlewood Farmers Ele. Castlewood, S. Dak.	Feb. 25, 1984	1	0	Electric spark
10.	Chester Farmers Grain Chester, Nebr.	Mar. 14, 1984	0	0	Mechanical spark
11.	Monroe Grain Co. Monroe, Nebr.	Mar. 15, 1984	2	0	Undetermined
12.	Lake Lillian Farmers Coop Lake Lillian, Minn.	May 11, 1984	4	2	Spark
13.	Blue Valley Coop Tamora, Nebr.	May 30, 1984	0	2	Defective bearing
14.	Archer Daniels Midland Decatur, Ill.	June 8, 1984	3	1	Undetermined
15.	Community Grain Co. Galesville, Ill.	June 26, 1984	1	0	Undetermined
16.	Juniata Farmers Coop Juniata, Nebr.	July 31, 1984	0	0	Metal spark
17.	Pettibone Ele. Pettibone, N. Dak.	Aug. 24, 1984	0	0	Undetermined
18.	St. Elmo Terminal Ele. Paulina, La.	Sept. 16, 1984	0	0	Undetermined
19.	Con Agra Inc. Knoxville, Tenn.	Sept. 19, 1984	11	3	Undetermined
20.	Indiana Grain Logansport, Ind.	Sept. 21, 1984	0	0	Undetermined
Total (No Federal employee deaths or injuries)			29	8	

SUMMARY OF REPORTED GRAIN DUST EXPLOSIONS
FISCAL YEAR 1985

No.	Location	Date	Injuries	Deaths	Probable cause
1.	Bay State Milling Co. Clifton, N.J.	Nov. 18, 1984	2	1	Undetermined
2.	St. Charles Ele. Destrehan, La.	Dec. 4, 1984	0	0	Explosion in external leg
3.	Haveman Grain Co., Inc. Murray, Nebr.	Dec. 7, 1984	2	0	Electrical spark from light bulb
4.	Southwest Grain Terminal Dickson, N. Dak.	Dec. 26, 1984	0	0	Office heating
5.	Farmers Coop Bus. Assn. Shelby, Nebr.	Jan. 2, 1985	2	0	Undetermined
6.	Farmers Coop Grain Assn. Stromsberg, Nebr.	Jan. 17, 1985	0	0	Undetermined
7.	Bunge Old Shawneetown, Ill.	Jan. 25, 1985	0	0	Undetermined
8.	Early and Daniel Cincinnati, Ohio	Feb. 6, 1985	0	0	Undetermined
9.	Comstock Farmers Coop Comstock, Minn.	Feb. 18, 1985	3	0	Fire on work floor
10.	Davenport Grain Co. Davenport, Nebr.	Apr. 2, 1985	2	0	Undetermined
Total (No Federal employee deaths or injuries)			11	1	

Question: What action does FGIS take when a grain explosion occurs?

Answer: FGIS gathers all information that is readily available pertinent to the explosion. This information is then transmitted to the USDA Grain Storage, Handling, and Processing Safety Coordinating Subcommittee, the Occupational Safety and Health Administration, trade groups, unions, university researchers and others. FGIS does not have any investigation responsibility for grain elevator explosions.

NATIONAL TECHNICAL CENTER

Question: What progress is being made in the development of a National Technical Center?

Answer: FGIS anticipates establishing the National Technical Center by February 1986. GSA is presently assessing several locations.

GRAIN INSPECTION

Question: Do you inspect grain donated to foreign countries through the P.L. 480 program or the Food Security Wheat Reserve?

Answer: Yes. Grain exported from export port locations must be inspected, except for grain which is not sold or described by grade. P.L 480 grain shipments are officially inspected and weighed.

Question: Are any attempts being made to encourage more states to perform inspections?

Answer: No. We are not aware of any additional state or states expressing an interest in performing inspections.

AGRICULTURAL COOPERATIVE SERVICE

STATEMENT OF RANDALL E. TORGERSON, ADMINISTRATOR

I appreciate the opportunity of appearing before you to present the funding request of the Agricultural Cooperative Service. First, I want to introduce my associates who are with me today -- Dr. Jack Armstrong, Deputy Administrator, Agricultural Cooperative Service; and Samuel V. Ladd, Director, Budget and Accounting Division, Animal Plant Health Inspection Service.

The Agricultural Cooperative Service (ACS) is the Department's focal point in providing research, analysis, technical assistance and education to farmer-owned cooperatives throughout the Nation. ACS operates as an independent agency carrying out major functions assigned to it by the Secretary. Missions of the Agency closely follow the language and spirit spelled out by Congress in the Cooperative Marketing Act of 1926.

Agency Missions

The Agricultural Cooperative Service performs research and policy analysis on cooperative related issues and is the primary supplier of technical assistance to farmer cooperatives. We help existing cooperatives improve their efficiency and effectiveness of operations and assist emerging ones to get a good start. We concentrate on providing immediate response and leadership to bring about more effective cooperative operations in support of a dispersed farm ownership structure.

The Agency's program has five basic missions: (1) technical assistance, (2) cooperative development, (3) research, (4) collection of cooperative statistics, and (5) cooperative education and information.

Farm Cooperative Sector

A total of 5,989 marketing, farm supply, and related service cooperatives were operating in 1983, with combined sales of $66.8 billion. Though sales declined 3.6 percent in 1983, net margins of all cooperatives increased 25 percent to $1.1 billion from very low 1982 levels. Total assets were $28.8 billion and member and patron equity $11.5 billion. Cooperative memberships were 4.95 million, indicating many farmers belong to more than one cooperative.

Although sales declined and many cooperatives suffered losses during the 1983 season, most have taken strong belt tightening measures to increase operating efficiency and have improved their financial reports during 1984. However, it would be less than truthful to say that these farmer-owned businesses are out of the woods. The saying that cooperatives cannot prosper when their farmer-owners are hurting is certainly true today. Cooperatives are, in practice and theory, an off-farm extension of the farm firms. Cooperatives that supply much of producers' feed, fertilizer, and seed needs face the same financing and account receivables collection problems as do other rural banks and businesses when farmers are in financial trouble. As cooperatives must raise their needed equity capital from farmer-owners, present economic conditions in agriculture make that job especially difficult. On the other hand, farmers look to their cooperatives to be as efficient and effective as possible in terms of reduced prices for needed supplies and higher prices for their products. As indicated by the number of financially troubled farm operators and cooperatives and the number of requests for technical assistance and merger feasibility studies, there are several economically tough years ahead for the cooperative community.

Overview of Research and Technical Assistance Activities

You may ask, and rightfully so, what are we in ACS specifically doing to assist the farmer cooperative sector. During the past year the Agency has been involved in 67 technical assistance projects involving 94 co-ops and producer groups, of which 47 projects were for emerging or developing co-ops. Commodities included grain, soybeans, cotton and cottonseed, strawberries, peanuts, fruits, vegetables, beef, dairy, handcrafts, feed, and other farm supplies. Examples were an examination of the impact of reorganization of the co-op ginning industry in West Texas; an assessment of the market for ice cream products in Japan; assistance to five fresh vegetable marketing co-ops in forming a federation to lower management service costs; and determining the feasibility of converting a Hawaiian beef slaughter company and beef processing-marketing company to a producer-owned co-op.

Research providing critical information to cooperative managers and directors includes an annual profile of the largest cooperatives, cost studies, director liability, guidelines for evaluating cooperative mergers, and future role studies for improving cooperative operations.

Major activities and research projects completed or being initiated include cooperative exporter booklets and studies focusing on cooperatives' export opportunities; farmer memberships in and use of marketing and farm supply cooperatives; financial profile of cooperatives; development of cooperative financial performance measures; marketing of wool, grain and live animals; and use of electronic communication through networking between cooperatives and their members.

Results of ACS research and technical assistance work are highlighted in the monthly Farmer Cooperatives magazine, now in its 50th year of publication. This publication is aimed at directors and managers of cooperative associations, more than 90 percent of which have annual sales of less than $15 million. They are truly small businesses that are found in rural communities throughout the Nation.

This past year, ACS programs have been reviewed by an Outside Program Review Committee chaired by Dr. Joseph Coffey, Director of Planning and Economics for Southern States Cooperative of Richmond, Virginia. This periodic review process provides valuable feedback from recipients of ACS services. The report is being finalized and should be available within the next couple of months.

In response to the President's Reform '88 program, we are still in the process of automating many analytical and administrative functions. When completed, this will help us to achieve our objectives with fewer employees. To conduct our Agency's activities during FY 1986, we will have a ceiling of 64 staff years.

Our budget request for FY 1986 is $3.6 million, which is $1.1 million less than the Agency's FY 1985 level. Our FY 1986 budget proposes the following changes:

-A reduction of $1 million for cooperative research and technical assistance efforts. This reduction will be achieved by eliminating all outside research with land-grant colleges and universities and further reducing research by Agency staff. As a result, program activities will be more sharply focused on critical issues facing cooperatives. In addition, crop and cooperative management and operations programs, as well as cooperative development and technical assistance activities will be reduced.

-A net decrease of $60 thousand for management savings including an increase of $94 thousand for FY 1985 pay costs and decreases of $20 thousand for administrative reduction; and $134 thousand for a 5 percent pay reduction in FY 1986.

In addition, it is proposed that ACS initiate a user fee program for providing technical assistance to cooperatives. Legislation is being prepared to provide for the beneficiaries of these services to pay for them to the extent possible.

Mr. Chairman, I thank you for the opportunity to present this statement. We will be pleased to respond to questions.

QUESTIONS SUBMITTED BY SENATOR COCHRAN

COOPERATIVE PERFORMANCE

Question: Although farm income has not been improving lately, net margins of cooperatives increased by 25 percent from 1982 to 1983. What do you think the reasons are for this? Does this imply that cooperatives are "the way to go?"

Answer: Although net margins of cooperatives increased 25 percent from 1982 to 1983, they were still 44 percent below cooperatives' total net margins of $1.9 billion in 1980. The increase in net margins in 1983 over 1982 came mainly from farm supplies, sales and marketing of fruits and vegetables, and cotton. Total net margins for cooperatives primarily handling grain and soybeans, rice, sugar, and other products such as dry edible beans and peas, nuts, and tobacco were down in 1983.

Net margins generated from cooperatives' sales of farm supplies were over $657 million in 1981. Due to an economic slowdown and heavy cooperative losses in 1982, net margins dropped to $164 million -- a 75 percent decrease. The improved margins in 1983 ($315 million for farm supply cooperatives) were due largely to austere measures such as selling off major assets and cutting back personnel, programs, and services.

The increase in net margins alone does not imply that cooperatives are "the way to go." However, it does demonstrate that cooperatives were able to adjust to difficult times and regroup their financial strength.

Question: Do you have statistics for cooperatives' performances in 1984?

Answer: We do have statistics for cooperatives' performance in 1984. Comparison of the performance of 40 selected large cooperatives for 1983 and 1984 showed: total sales up 12.8 percent; net margins (after losses of $46 million) up 19.4 percent; assets and total debt down 1.1 and 5.7 percent respectively; and net worth up 3 percent. Cooperatives primarily handling grain and soybeans had a difficult year. Net losses of these cooperatives exceed net margins by $25.3 million. Additional information on the performance of all cooperatives is being compiled and will be available later this year.

AGENCY STAFFING & BUDGET

Question: How do you explain the fact that you are reducing your budget by $1.1 million, but only reducing your staff-years by 2?

Answer: Proposed reductions involve items including cooperative research agreements and equipment, which are not directly related to Agency Staffing levels.

Question: Seventy percent of the personnel in your agency are ranked GS-11 or above. That is a higher percentage than the Office of the Secretary. The average GS salary for your agency is $33,583. Why does such a small agency require such a large number of relatively high-paid employees?

Answer: The major missions of the Agricultural Cooperative Service are to do economic research on cooperative related issues and provide economic feasibility studies for groups interested in organizing new cooperatives. Both these endeavors require staff with a high level of formal training and experience with the majority of our employees having M.S. or Ph.D. degrees. This type of work results in sophisticated and detailed reports. In addition, the agency has supported the Administration's efforts to improve management by automating more of its work through use of computers and word processing equipment. This has resulted in a decreased need for support staff. These factors have contributed to the Agency's present average grade level and staffing mix.

Question: You are reducing cooperative research and technical assistance from $1,239,000 to $225,000, an 82% reduction. Research and technical assistance are your "major" missions, according to the "Explanation of Program" portion of the explanatory notes. How do you justify this contradiction?

Answer: The net decrease of $1,014,000 ($1,239,000-$225,000) will come from the total cooperative research and technical assistance programs. Combined in FY 1984 these programs comprised about 75 percent of the Agency budget or approximately $3.5 million. The reduction will allow the Agency to continue to administer its programs and focus on high priority issues.

Question: What assistance and research will be done with $225,000?

Answer: This amount will be used to support the cooperative research area through cooperative research agreements.

Question: Please detail (including fiscal year comparisons) "Other Services" from your object classification table.

Answer: The detailed breakdown follows:

ACS
Object Class 25

		Cost Per Year	
Title	FY 1984	FY 1985	FY 1986
Contractual Services Performed by Other Agencies	$ 82,441	$ 64,912	$ 60,000
Other Services - Performed by Other Agencies	54,698	33,137	35,000
Repairs, Alterations and Maintenance - of Equipment, Furniture and Structures	35,657	50,804	60,000
Other Contractual Services	211,727	190,000	180,000
Cooperative Research Agreements	711,675	961,140	50,000
Other Agreements	26,570	17,426	20,000

ADP Processing Services and Supplies	113,311	105,581	60,000
Miscellaneous Services	56,834	40,000	30,000
TOTAL	$1,292,913	$1,463,000	$495,000

Question: You are proposing to produce savings through user fees for your activities. Why are you cutting the "starting point" for the proposed savings? In other words, why not maintain the current program level if user fees are going to pay for the services anyway?

Answer: The budget request for the Agricultural Cooperative Service is $3,565,000. The budget also identifies savings of $1,565,000 within the budget request to be collected through user fees. The $3,565,000 request is the Agency's original budget request and does not represent a decrease in requested funds from the previous year.

INTERNATIONAL MARKETING

Question: Last year, the Senate Committee report stated this Committee's expectation that ACS would give priority to efforts to assist and encourage agricultural cooperatives in their efforts to expand the international marketing of agricultural commodities. What have you done in this regard?

Answer: Research activities to assist agricultural cooperatives in efforts to expand international marketing of agricultural commodities include the following:

Publishing 4 booklets describing cooperative exporters of grains and oilseeds; dry beans and peas; fruits, vegetables and nuts; and animal products.

Staff report on potential of using export trading companies to provide export transportation services to cooperatives.

Research on how small and medium sized cooperatives can use export management and export trading companies to penetrate foreign markets. (publication forthcoming)

Development work on an international trade information system providing more complete and current information to cooperative exporters.

Evaluation of foreign promotion expenditures for poultry, apples, and tobacco. (publication forthcoming)

Estimate costs of maintaining a foreign office and staff in about 15 countries. (publication forthcoming)

Market potential for fresh and processed fruits and vegetables in Pacific rim countries. (publication forthcoming)

Technical assistance to cooperatives included evaluation of export trading companies for a regional cooperative, evaluation of Japanese ice cream markets for an eastern cooperative, feasibility of a unit--train elevator to serve export markets for a midwestern cooperative, and evaluation of selected Asian markets for a West Coast fruit and vegetable marketing cooperative.

Other activities include exhibits in the recent National Association of State Departments of Agriculture National Food and Agricultural Exposition, consultation with numerous foreign visitors on potential for trade with cooperatives, and review of legislative and regulatory proposals that may impact cooperatives' ability to export agricultural products.

ASSISTANCE TO COOPERATIVES

Question: How is your time currently divided between assistance for new and emerging cooperatives and cooperatives which already exist?

Answer: In FY 1984, staff time devoted to assistance to cooperatives was equally split between existing cooperatives, and, new and emerging cooperatives. The Agency participated in a total of 67 formal technical assistance projects involving 94 cooperatives and producer groups. Twenty projects were with existing cooperatives and 47 with new and emerging cooperatives.

OUTSIDE COMMITTEE REVIEW

Question: Last year, you testified that funding levels for the Agency would be based, in part, on an outside committee's analysis of your budgetary needs. Your statement indicates that that report will be available soon. Do you intend to submit an amended budget request in accordance with the committee's report? (Please supply the Committee with a copy of the report as soon as it is available.)

Answer: The Committee's report did not make recommendations which would indicate the need for an amended budget. We do not intend to submit an amended budget request. A copy of the report has been furnished to the Committee under separate cover.

PACKERS AND STOCKYARDS ADMINISTRATION

STATEMENT OF B.H. (BILL) JONES, ADMINISTRATOR

I appreciate the opportunity to appear before this Subcommittee to discuss the programs of the Packers and Stockyards Administration (P&SA) and the Agency's budget request for fiscal year 1986. First, may I introduce my associate, Calvin W. Watkins, Assistant to the Administrator.

P&SA is responsible for enforcement of the Packers and Stockyards Act of 1921, as amended. Agency programs are designed to assure the integrity of the livestock, meat, and poultry markets and the market place. This includes assuring payment, fostering fair and open competition and guarding against unfair, deceptive and other fraudulent practices in the marketing of meat animals and the products therefrom.

Simply stated, P&SA is an investigative and law enforcement agency. Its work can be properly divided into three areas: payment protection, anti-trust activities, in the broad sense, and countering white-collar crime. The cost of the latter obviously is borne by both the producers and consumers.

The Subcommittee is well aware of the amendments made to the Act in 1976 to strengthen the payment provisions. Of late, the Agency has been forced to give special priority to the financial problems encountered by market agencies (including auction markets), dealers, and packers. There have been significant financial failures by firms in each of these operational categories. The Subcommittee will be interested to know that in excess of $23.4 million has been paid to cash sellers of livestock under the statutory packer trust since its passage in 1976. In fiscal year 1984, cash sellers collected $2.8 million under this program from 13 packers.

As livestock, meat, and poultry production and marketing continue to change, Agency programs and operations are reviewed and adjusted to meet the needs of the industry in harmony with statutory authority. The effort on the part of P&SA to adjust its work priorities and regulatory requirements, after consideration of the comments and recommendations from the public, is evidence of its sensitivity to changes in the livestock, meat, and poultry industries.

The enforcement of the Act and the efficiency of program activities are being substantially improved through automation. The Agencywide Information Management System (AIMS) is designed and is being implemented to improve the efficiency of collecting, processing and analyzing information and data, including investigative data. The system will accommodate the automation needs of the internal administrative functions of the Agency, including telecommunications, electronic mail, and data transmission among all the offices of P&SA and between P&SA and other appropriate USDA offices.

The Agency has initiated training programs for its employees, including those in the field, on the system itself, on program software, and on word processing and data processing equipment, including the use of microcomputers in developing investigative files and reports.

SCOPE OF OPERATIONS

Currently, there are 1,800 stockyards subject to the Act; 10,690 registrants, including 7,700 market agencies/dealers and 2,990 packer buyers. There are approximately 6,800 slaughtering and processing packers, and an estimated 6,500 meat distributors, brokers, and dealers. There are also approximately 265 poultry firms subject to the Act.

The importance of the production of live animals and meat is indicated by their value at the wholesale level, which is in excess of $60 billion annually.

The programs of the Packers and Stockyards Administration are divided into two major areas: Livestock Marketing and Packer and Poultry programs. Presently, the goal of the Agency is to allocate its resources on approximately a 50/50 basis between the two program divisions, the Packer and Poultry Division and the Livestock Marketing Division. Flexibility to reallocate resources between the two must be maintained, however, in order to respond to problems when they occur. As previously mentioned, for example, financial problems encountered in the industry of late have resulted in more resources being directed to livestock marketing.

LIVESTOCK MARKETING

The focus of the Livestock Marketing program is on payment protection, fraudulent schemes, false weighing, and major trade practices of stockyards, marketing agencies, and dealers. Major emphasis is given to payment protection and investigating fraudulent marketing practices. This emphasis will be continued in work planning and allocation of the Agency's resources.

Fraudulent practices include misuse of custodial funds and other custodial account violations; check kiting; false weighing; weight and price manipulation; switching of livestock; misrepresentation as to the quality, source, origin and health of livestock; market agents defrauding principals; and altering books and records.

The Agency is endeavoring to make its payment protection work more effective by allocating more resources to a strong surveillance program. The major emphasis is being directed at preventing serious insolvencies, failure to pay, failure to pay promptly, and financial fraud, in place of "mopping up" after the fact.

One of the major priorities in livestock marketing is to foster and maintain fair and effective competition in the industry. Any practice, agreement, or understanding which excludes a potential buyer from bidding in open competition either in direct trading or at public markets is a restraint on competition. Investigations often disclose practices which result in the lessening of competition for producers' livestock. These include apportioning of territories, price agreements or arrangements not to compete, and payoffs or kickbacks to buyers. Any information which indicates that a restriction of competition may exist will continue to be investigated on a priority basis.

PACKER AND POULTRY

The primary responsibilities of the Packer and Poultry program are to ensure open and free competition in the procurement of livestock, the marketing of meat and poultry, and to assure prompt payment to producers. Packer and poultry activities continue to place high priority on comprehensive payment protection for sellers of livestock to packers. This protection consists of provisions for prompt payment, bonding, solvency, and a statutory trust. The existence of the packer trust has helped substantially in reducing losses to producers who sell livestock on a cash basis to slaughtering packers.

Dramatic changes have occurred in the meat packing industry over the last few years, including the closing of plants, the building of large capacity high-speed slaughter plants, mergers, acquisitions and the realignment of ownership and operational control. These developments, along with innovations in procurement, slaughter, processing and distribution, have caused the Agency to periodically review its priorities.

MEAT MARKETING

Investigations of commercial bribery and illegal brokerage in the marketing of meat continue with emphasis on the operations of meat brokers and wholesale meat distributors. Firms making payoffs to meat buyers have captive accounts and enjoy a favored position over other suppliers who compete on the basis of services and/or quality.

The nature of these practices and their impact on the industry have required the Agency to devote considerable attention to such problems. In addition to payoffs to meat buyers, investigations have also revealed kickbacks to packer salesmen. Cases of this nature necessitate numerous subpoenas for individual and business bank accounts and may cover broad geographic areas. P&SA works closely with other Government agencies such as the FBI, the IRS and the Postal Inspection Service investigating such practices.

POULTRY MARKETING

The principal activity of the poultry program is to investigate grower complaints and to monitor the contractual relationship between integrators and contract growers for compliance with regulations administered by P&SA. Also, the Agency has given attention to timely and accurate weighing and adequate accounting.

BOXED BEEF PRODUCTION

Ongoing analysis by the Agency indicates that the proportion of beef being boxed continues to increase. Boxed beef production by meat packers, excluding chain stores, accounted for 12.6 million carcasses or about half of federally inspected slaughter of steers and heifers in 1979. Production has increased to 18.6 million carcasses. This is 69 percent of the 26.8 million steers and heifers slaughtered in 1983. Concentration is increasing in both slaughter and boxed beef production. The combined market share of the largest four boxed beef firms increased from about 52 percent in 1979 to 60 percent in 1983. Retailers fabricated about 1.5 million steers and heifers into boxed beef for distribution to their own stores in 1983.

GRADE AND WEIGHT

The Agency is continuing major emphasis in the area of livestock procurement by packers on a carcass weight or carcass grade and weight basis. A report was released to the public last year detailing the results of an extensive investigation of the procurement of hogs on a grade and yield basis by major hog slaughterers. The Agency is working with the industry to effect constructive changes in grade and yield hog buying programs. In addition, the Agency has undertaken a comprehensive study of the procurement programs of major U.S. lamb slaughterers. This review is focusing on the payment practices and the competitive effects of concentration and vertical integration in this segment of the industry.

SCALES AND WEIGHING

The major emphasis of the Agency's scales and weighing program is being directed toward weighing investigations. At present, there are three primary methods of investigating weighing practices to detect fraudulent and careless weighing. They are: (1) examination of weighing records, (2) check weighing, and (3) direct sale of pre-weighed livestock. Over the last 5 years the Agency has conducted approximately 400 investigations each year with little variation in the violation rate. However, during fiscal year 1984, the violation rate was somewhat higher.

FISCAL YEAR 1986 BUDGET REQUEST

Under the current law the total budget request of the Packers and Stockyards Administration for fiscal year 1986 is $8,874,000; a net decrease of $246,000 from the fiscal year 1985 budget request. The net decrease consists of:

(a) Decreases of $327,000 for a 5-percent pay reduction for all employees in fiscal year 1986 and $63,000 for management savings.

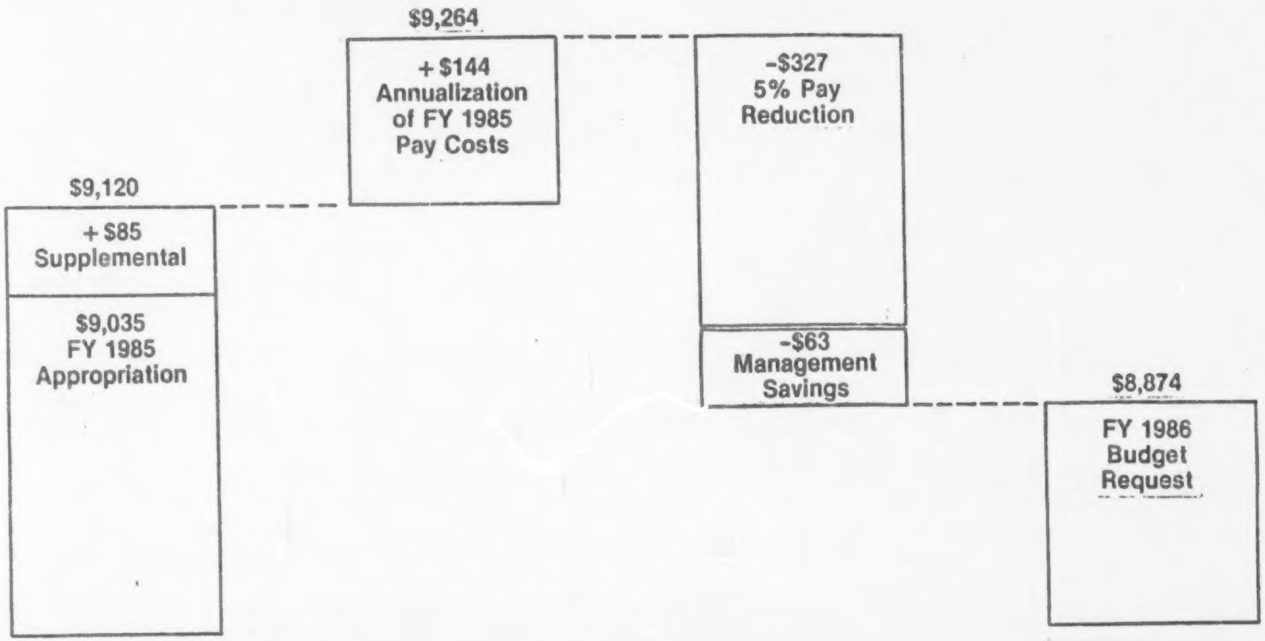
(b) An increase of $144,000 for annualization of fiscal year 1985 pay costs.

The budget also proposes to finance 50 percent of the Packers and Stockyards program on a licensing fee basis. Proposed legislation required to implement the fee program is being submitted to the Congress.

Mr. Chairman, I thank you for the opportunity to present this statement. We welcome the opportunity to respond to any questions you and other members of the Subcommittee may wish to ask.

Packers and Stockyards Administration

FY 1986 Budget Request
Dollars in Thousands



Packers and Stockyards Administration

The Programs of P&SA are Designed to Foster Fair and Open Competition and Guard Against Deceptive and Fraudulent Practices in the Marketing of Meat Animals and the Products Therefrom.

The Livestock Marketing Activity is Concerned With:

- Payment Protection
  Bonding
- Competition and Marketing Practices
- Scales and Weighing

The Packer and Poultry Activity is Concerned With:

- Competition and Trade Practices
- Payment Protection
- Meat Marketing
- Poultry Marketing
- Scales and Weighing

Packers and Stockyards Administration:

MISSION: **The mission of P&SA is to assure the integrity of livestock, meat, and poultry markets and the market place**

Investigative and Law Enforcement Agency

- Payment protection
- Anti-trust
- White-collar crime/fraud

Packers and Stockyards Administration

FY 1986 Funding Level

AGENCY OBJECTIVES:

- Programs Involving Payment Protection, Bonding, Packer Trust, and Custodial Account Surveillance Maintained
- Major Investigations Involving White Collar Crime/Fraud, Unfair Competition and Deceptive Practices Continued
- Coordination with and Assistance to Other Federal Law Enforcement Agencies Provided
- Programs to Assure Accurate Scales and Weighing Maintained

Packers and Stockyards Administration

Overview

SIZE OF INDUSTRY

○ Producer Receipts Livestock and Poultry	$47 Bil
(33% of Total Cash Farm Receipts)	

● Market Value Added Through Slaughter, Processing and Wholesaling	$13 Bil
● Total Value of Red Meats and Poultry at Wholesale	$60 Bil

Coverage of Program

○ Scales	5,000
○ Packers S&P(800 Bonded)	6,800
○ Other Packers	6,500
○ Poultry Firms	265

● Posted Stockyards	1,800
● Market Agencies/Dealers	7,700
● Packer Buyers	2,990

Areas of Responsibility

- Payment Protection
  - Prompt Payment
  - Custodial Accounts
  - Solvency
  - Bonds
  - Trusts

- Unfair Trade Practices
  - Conflict of Interest
  - Maintaining Competition
  - Bribery—Livestock and Meat
- Fraudulent Practices
- Accurate Scales and Weighing

QUESTIONS SUBMITTED BY SENATOR COCHRAN

PACKER TRUST

Question: Please explain how the Packer Trust operates.

Answer: This section of the Act provides for a constructive statutory trust by operation of law when a packer purchasing over $500,000 annually fails to pay for livestock. One of the requirements is that the sellers make timely notification to the packer and P&SA. It is on this basis that P&SA proceeds immediately to investigate a packer when there is a payment problem. When P&SA investigators visit the packer, there are two critical phases of the investigation: (1) determining unpaid sellers of livestock and making them aware of the notification requirements, and (2) preventing the packer from dissipating trust assets. Agency personnel must determine the trust assets available, i.e., proceeds on hand, accounts receivable and inventories, and make certain that cash collections are maintained for the potential trust claimants. In the event there is a likelihood of irreparable harm to sellers, P&SA may seek a temporary restraining order or preliminary injunction to protect the trust funds for proper claimants.

In the beginning, of course, there were legal challenges to the trust provisions, as case law has developed, more trust situations are resolved on an informal basis. In some cases, unpaid sellers have pursued their interests under section 308 of the P&S Act which provides for a private right of action by anyone harmed by a violation of the Act relating to the purchase, sale, or handling of livestock.

P&SA is not a direct party to the litigation process involving the statutory provision whether the matter is in bankruptcy court or a private lawsuit in Federal District Court. The Agency does provide whatever assistance it can to unpaid sellers through testimony by Agency personnel or through documentary information. Also, in most cases where there is litigation, the Agency through the Office of the General Counsel, does provide "amicus curiae" briefs.

LIVESTOCK MARKETING

Question: What action is taken if you suspect misrepresentation as to the quality, origin, and health of livestock? Do you allow such animals to be slaughtered? If so, do you alert the Food Safety and Inspection Service?

Answer: The problems of health in livestock moving in interstate commerce would be under the jurisdiction of APHIS. FSIS has jurisdiction over the slaughtering of livestock and the movement of meat in commerce and would make the determination concerning the slaughter of sick or injured animals. If P&SA is aware of improper procedures in the handling of injured or sick livestock, it would certainly alert FSIS or APHIS.

Problems of health in slaughter livestock would not generally come to the attention of the Agency prior to slaughter. Also, slaughter livestock is normally sold through public markets "as is" or, when sold directly to a packer, is traceable to the individual seller.

Problems concerning misrepresentation as to quality, origin, and health generally involve stock cows or feeder livestock. When misrepresentations are uncovered, the Agency investigates and corrective action is taken including issuing a formal administrative complaint when necessary charging an unfair and deceptive practice. Cases of this type would be closely cooridinated with APHIS. Also, the livestock purchaser can file for monetary damages under the provisions of the P&S Act if he is harmed by misrepresentations made by a market agency or dealer.

Since June 1984, P&SA has worked closely with FSIS in carrying out a voluntary certification program in marketing veal calves. The purpose is to assure drugs given as treatment do not enter the food chain. This involves P&SA investigating individuals who falsely certify calves to be free of drug contamination. Two formal actions have been filed by P&SA for willful falsification of drug certificates.

PAYMENT PROTECTION

Question: Why is it necessary to have a government agency to assure prompt payment from packers to producers?

Answer: It is estimated that 80% of all slaughter livestock is purchased by packers directly from producers and custom feedlots. Livestock producers have been exposed to increased risks created by business practices engaged in by packers. Between 1958 and early 1975, 167 packers failed, leaving livestock producers unpaid for over $43 million worth of livestock. By far the largest of such failures was that of American Beef Packers, which went bankrupt in January 1975, leaving producers in 13 states unpaid for a total of over $20 million in livestock sales. The majority of the amount owed was due to payment delays engaged in by the firm. Had the firm been paying promptly for livestock, the losses to producers would have been considerably less. The sales of livestock to a packer is a unique situation. Livestock sold in this manner has always been a cash sale of a perishable commodity. The livestock when slaughtered loses its identity and the farmer loses control once the livestock is in the packer's hands. The carcasses and products move rapidly through marketing channels. Even though financial protection is provided by the statutory trust provision and bonding, prompt payment must be assured in order to reduce the amount of exposure by livestock sellers.

AGENCY ACTIVITIES

Question: At what point does your area of responsibility and surveillance transfer to the Food Safety and Inspection Service?

Answer: Actually there is no point at which a transfer of function takes place, since each agency has separate and distinct responsibilities. The Food Safety and Inspection Service is involved in assuring the health and safety of the meat and poulty supply and the Packers and Stockyards Administration is responsible for helping to maintain economic law and order in the market place.

Question: In retrospect, is there any way that your surveillance activities could have prevented the actions of Cattle King and the Nebraska Beef Packers who slaughtered uninspected cattle and sold adulterated meat to the School Lunch Program? Have you taken any actions to prevent another incident like this?

Answer: The Food Safety and Inspection Service has jurisdiction in matters of this nature. The type of surveillance activities carried on by P&SA in meeting its responsibility under the P&S Act does not address the actions of Cattle King and Nebraska Beef Packers. The actions referred to deal with the health and safety activities of the firms.

CFTC LIAISON

Question: Does your agency have any established relationship with the Commodity Futures Trading Commission?

Answer: Yes. The Commodity Futures Trading Commission has jurisdiction over the futures market which would include illegal practices concerning futures prices. The Packers and Stockyards Administration would have jurisdiction over the livestock and wholesale meat markets which would include any illegal manipulation of livestock or meat prices. The two agencies work closely together in monitoring the future and live prices in an attempt to prevent any market manipulation. The pricing of commodities either on futures trades or live trades can affect the other market and it is necessary that a close working relationship be maintained.

PERSONNEL

Question: You are proposing to reduce staff years by 5. From what division of your agency will they be taken?

Answer: At the present time it is planned that there will be one taken from the Packer and Poultry Division and one from the Livestock Marketing Division, a total of two from the headquarters office. There will be three taken from our field offices.

ECONOMIC RESEARCH SERVICE

STATEMENT OF JOHN E. LEE, JR., ADMINISTRATOR

Mr. Chairman and Committee members, I appreciate having this opportunity to again appear before you to discuss the programs of the Economic Research Service.

Major Responsibilities of ERS

Permit me to take a moment to briefly outline ERS's four major responsibilities.

First is the responsibility to analyze the current situation and outlook. That includes our traditional situation and outlook reporting that explains the forces influencing the situation and the prospects for the future for major commodities, production inputs, farm real estate, farm finance, export markets, and foreign competitors.

Second, ERS has the responsibility to put current issues and concerns into economic perspective. Issues such as farm financial stress, soil erosion, rural poverty, and the changing structure of agriculture draw emotional responses. ERS's job is to provide the economic information that puts those issues into clearer perspective to facilitate a more informed response. That economic information is the product of our long-term research.

The third responsibility is to analyze the performance of the agricultural and rural sectors in achieving society's objectives, and to assess how public policies and programs relate to that performance. We approach this by examining alternatives to and consequences of existing policies and programs, including direct, indirect, short-term, long-term, and distributive effects, and effects on efficiency and other performance criteria.

Finally is the responsibility of ERS to draw on the above activities and capacities to provide staff work required to aid the decisionmaking process in the Administration and the Congress.

Accomplishments in 1984

ERS staff responded to 65,332 requests for economic information, and published 17,070 printed pages of economic analysis and research in 1984. Those figures do not include unpublished staff reports that were used to address specific policy questions. Let me give you a few examples of what we did in 1984.

Some ERS research was focused on the issues and topics likely to be raised in preparing the 1985 farm bill. A series of 14 background papers on the program commodities was published. Those papers summarize the experience with the farm programs and the key characteristics of the commodities and farm industries that produce them. Seven additional reports in that background series that have been published thus far in 1985; they are **Federal Credit Programs in Agriculture, History of Agricultural Price Support and Adjustment Programs from 1933 to 1984, Foreign Exchange Constraints to Trade and Development, Financial Constraints to Trade Growth (World Debt Crisis and its Aftermath), Impacts of Policy on U.S. Agricultural Trade, Possible Economic Consequences of Reverting to Permanent Legislation or Eliminating Price and Income Supports,** and **Current Financial Condition of Farmers and Farm Lenders.**

In the international trade area, ERS research illuminated the severity of debt and financial stress in many developing countries and their effects on trade and economic growth. Many of the current debt problems of the developing countries began after the 1973-74 oil crisis and intensified with the shift to tight monetary policies by the developed countries in the late 1970's. The debt problems of developing and centrally-planned countries will limit their ability to purchase goods in the world market for several years. Resolution of those debt problems could significantly increase U.S. agricultural exports over what they would otherwise be.

In the natural resource economics area, ERS developed a new economic classification system for soils with respect to physical and economic erosion hazards. The new classification indicates that 37 percent of U.S. cropland are inherently nonerodible under all management regimes, and 55 percent require conservation management to keep soil losses within tolerable limits. The remainder is so erodible that soil losses will be excessive under intensive cultivation irrespective of conservation programs. Those distinctions suggest that Federal conservation programs should be targeted to land whose erosion problems can be controlled.

In the rural development area, ERS demographers kept a close eye on the relative rates of population growth between metropolitan and nonmetropolitan areas to determine whether the rural population turnaround of the 1970's continued into the 1980's. The nonmetro growth rate appears to have declined to about the same as the metro rate, which has remained stable. The last two farm population surveys show that about 6 million Americans live on farms. However, ERS research revealed that an increasing proportion of people living on farms are employed in nonfarm occupations.

1985 Program Changes

As 1985 is a year of major public decisions on farm programs, analyses of farm bill proposals are receiving special attention. Other topics of increased emphasis in 1985 include the linkages between U.S. agriculture and U.S. and global macroeconomic conditions and policies (our 1985 appropriation included an increase for a new program of research in this area); U.S. competitiveness with other countries in agricultural production and trade; the evaluation of soil conservation programs; and the performance of credit markets for agriculture, households, and businesses in rural America.

1986 Budget Request

We propose a $44.6-million budget for 1986, a $1.5-million decrease from 1985. This budget would enable us to deliver the same level of program in 1986 as in 1985, assuming that there is no significant inflation in the nonsalary costs of doing business. No program changes are proposed, but we would continue to redirect our base resources to the highest priority work within our areas of responsibility.

The net decrease of $1.5 million is composed of an increase of $757,000 for annualization of the 1985 pay raise, and decreases of $555,000 for management savings and $1.7 million for the proposed pay reduction.

Concluding Remarks

This is a year of decisions of potentially great magnitude for U.S. agriculture. We feel that the benefits to society of informed public policy decisionmaking far exceed the relatively small investment we are asking to make in maintaining the economic information programs of the Economic Research Service at their current level.

Thank you again for this opportunity to present our 1986 budget request to this Committee. I will be pleased to answer any questions.

QUESTIONS SUBMITTED BY SENATOR COCHRAN

MARKET ORIENTATION

Question: The Administration is proposing a move to market orientation in agriculture. The soybean program is already about as market oriented as you can get, but soybean exports are decreasing. Have you done any analyses to determine why the market orientation has not been working with soybeans? Does this signal a problem with market orientation, or are there overriding factors affecting today's market?

Answer: The drop in U.S. soybean exports in the past few years is neither a signal that the market oriented approach has not worked for soybeans, nor that it will not work for other commodities. The decline in U.S. soybean exports over the past few years is in fact a comfirmation that the market will work, if allowed.

A number of factors are responsible for the decline in U.S. exports. The world economic recession and severe financial crises of several major importers led to a decline in the world demand of soybeans and products. In addition, there was a drop in world supplies last year because of the reduced U.S. soybean crop. The market worked to ration reduced supplies between domestic and foreign buyers. However, the strength of the U.S. dollar, a factor outside the bounds of the market, has distorted the market. For example, the calendar 1984 soybean meal prices (OOO Rotterdam) average 17 percent less than 1983, when expressed in dollars. However, the decline was only 7 percent when expressed in Dutch guilders.

A similar pattern occurred with respect to the currencies of several other large importers such as Japan and West Germany. Price is the mechanism that equates supply and demand in a market-oriented system. U.S. consumers saw a substantial decline in prices and responded accordingly; importers only saw a portion of the decline and also reacted as the market would suggest. On the other hand, the strength of the dollar spurred Brazil and Argentina to expand exports. Even declining dollar prices for soybeans and products were favorable when expressed in their weak currencies.

This year, the continued strength of the dollar, weak meat demand, reduced milk production, and large supplies of feedwheat, coarse grains and other non-grain feeds, and substantial discounts offered by competitors have all contributed to the weak demand for U.S. soybeans and products in the European Community, our biggest market.

Question: Have any studies been done to determine the prices at which soybeans, corn, rice, wheat, and cotton would be sufficiently competitive in world markets that U.S. exports would increase?

Answer: There are number of studies recently completed and currently underway in the Economic Research Service and other USDA agencies addressing the issue of U.S. competitiveness in world commodity markets. Our ERS study titled "Possible Economic Consequences of Reverting to Permanent Legislation or Eliminating Price and Income Supports" evaluates the impacts of two outerbound policy alternatives. Reverting to the permanent support programs, dating in some cases back to the 1930's, would raise price and income support levels significantly and greatly reduce the role of market forces in determining farm returns. Alternatively, if all price and income supports were eliminated in 1985, Government intervention in the market would end and supply and demand forces would determine farm returns.

The most immediate effect of adopting either policy alternative would be through changes in commodity prices. In 1986, the year after implementation of the policy alternatives, U.S. export prices ($US/ton) for selected commodities would be as follows (permanent legislation versus no support): Wheat ($179 vs. $135), corn ($139 vs. $118), soybeans ($291 vs. $257), cotton ($2,140 vs. $1,440), rice ($465 vs. $360), and tobacco ($5,880 vs. $4,960). The lower prices under the no support scenario would make U.S. exports competitive and would stimulate exports.

Question: If commodity prices were low enough to be competitive in the world market, would U.S. farm structure remain essentially the same as today, or would there have to be significant shifts? What changes might be anticipated? What would be the impact on family farms?

Answer: If commodity prices were to decline further to levels competitive in world markets, a significantly smaller number of farms would remain in the agricultural sector. The most significant losses in farm numbers would come from the middle range of family-size commercial farms, those with sales between about $50,000 and $250,000. Smaller part-time farms with large off-farm income sources would likely not decline significantly, and very large farms with over $500,000 in sales would likely increase in number. There might also be an increase in the proportion of full tenant farms above their current 11 percent.

Most probably, farms that both own and rent land would increase in number and increase in their proportions of rented land as more land passes into the hand of nonoperator landowners and is rented to operating farmers. If the transition to greater market orientation includes phasing out all deficiency payments as well as lowering loan rates, then larger numbers and proportions of farms than at present will experience financial stress from low net incomes and declining farm asset values during the transition. Gradually, however, exports will expand so that revenues from greater volume offset revenue losses from lower prices; thereby raising net farm income. As that happens, benefits will flow to farms of all sizes that are efficient and have low costs of production. It should also be noted that if our prices are not competitive in export markets, the U.S. agricultural plant will gradually shrink, and will likely cause structural adjustments even more severe than under the market-oriented scenario.

Question: Is the aggregate demand for U.S. products elastic or inelastic when viewed over the next 1-2 years, over the next 2-4 years, and beyond 5 years?

Answer: Economists cannot say what the price elasticity of total demand is for agricultural products with a high degree of confidence. Many measurement problems are involved. However, that elasticity appears to be quite low over a 1-2 year period (less than -.5), somewhat more elastic in 3-4 years (between -.4 and -.9) and possibly elastic (greater than -1.0) after 5 years. Export demand elasticity is more elastic as the price response time period lengthens. Domestic demand elasticity is quite low and changes little over time in the aggregate.

Question: To what extent might we expect increase exports as a result of lower commodity prices?

Answer: Lower commodity prices should lead to increased agricultural exports. The increase might be small the first year, but if the price remained low for several years, the increase in exports eventually could be substantial. For example, a 10-percent drop in grain and soybean prices would likely increase their export volume 4 to 8 percent the first year or two. If the price reduction were sustained for several more years, export volume would likely increase more than 10 percent over what it would have been without the price reduction.

NEW TECHNOLOGIES

Question: New technologies abound. What types of farmers are adopting these, and which group are benefiting most from them -- small, moderate, large, or very large farmers?

Answer: The answer to this question is heavily dependent upon the technology or set of technologies being considered. A general rule of thumb is that technologies requiring a large capital investment tend to be adopted by larger, more financially successful farms, while technologies requiring small capital investments can be adopted by most farmers. Previous studies show in general the early adopters benefit most from the adoption of a new technology. These are the producers who survive. They tend to posses more human capital in the form of education and are likely to be managers or larger-scale operations that can spread adoption costs over more units. Smaller farms seem to adopt new technology at slower rates and thus may not realize the benefits of early adoption. However, a number of smaller farm operators rely on off-farm income to compensate for lower returns.

We are not aware of a data set permitting a categorization of technolocy adoption by size of farm. However, a report Research and the Family Farm, February, 1981, prepared by a subcommittee of the Experiment Station Committee On Policy (ESCOP) does contain some relevant information obtained from a sample of State agricultural experiment station projects for fiscal year 1979. It reported that over 74 percent of the total research effort was devoted to agricultural production. Of this amount, 28.1 percent was for basic research, 3.1 percent was useful primarily to government agencies, 7.3 percent was for the benefit of small farms, 4.9 percent for moderate size farm, 3.2 percent for large farms, and 53.3 percent was useful to farms of all sizes.

Question: What changes have been taking place, and what changes are projected for private sector involvement in research and extension activities associated with new technology? What are the implications of increased private sector involvement, and what is the proper balance between public and private sector components of the research and extension system?

Answer: For extension activities, we can expect the private sector to undertake those activities that promote the use of their products or services. There has been a significant growth in the number of private consulting frims that provide agronomic and pest control advice and services to commercial farming operations. Additionally, on a pilot basis in some States, State extension services are charging fees on selected services. Once the service is accepted, the intent is to shift the service to the private sector.

From a societal viewpoint, it is not likely the private sector will support all research that is necessary because of the profit requirement. Additionally, private sector involvement can lead to overuse of inputs such as fertilizer and pesticides because of the profit motivation on the part of the private sector. In this same light, the private sector may promote the use of overuse of technologies that impose costs on society but not on producers directly. Examples are human health hazards or environmental degradation. Publicly-funded research, or regulations may be required to alleviate these costs. Pesticide regulations is one such instance where society was deemed the need for public involvement.

The proper balance between private and public research depends upon society's goals and objectives. The controversy surrounding the appropriate mix between public sector and private sector research highlights the complexity of the issue. Yet, a general theme emerges. The systems approach to problem solving is being increasingly used. It seems highly unlikely that the scientific expertise required to create future technologies will reside only in one of the sectors. Collaboration between the public and private research institutions will continue. However, the emphasis is changing. The private sector will become more involved in mechanization and biotechnology research. The public sector will support more basic and applied research in areas that are not profitable to the private sector, have public good characteristics, or require large capital outlays with highly uncertain payoffs.

ECONOMIES OF SCALE

Much is said about increased efficiency resulting from economies of scale.

Question: Is larger always more efficient?

Answer: No, empirical studies of technical economies of size on crop farms conducted in the late 1970's indicate that variable costs decline modestly from very small farms to medium size farms, but beyond a size that represents the 75th percentile of size of farms (about the middle of the "family size" farm group) there are very few technical costs savings. In other words, most of the size economies inherent in today's farm technology are already captured by family-size farms. Further expansion of farm sizes would not increase the technical efficiency of production. Larger-size farms would produce higher incomes for their owners and operators, and might result in some additional advantages in purchasing inputs, marketing products, or in sheltering other income from taxation. While these factors may increase the competitive edge of larger farms, they do not result in increased efficiency of food production.

Question: Are there incentives for farms to grow in size?

Answer: There are a number of incentives for farms to grow in size in the current economic environment. While available evidence suggests that most technical efficiencies of size (that is, obtaining maximum output per unit if input) are achievable on mid-size farms, peruniary efficiencies (those stemming from market or financial conditions) continue to increase with farm size. Larger farm operations frequently are able to place large volume orders for fuel, seed, and chemical inputs and obtain discounts, sometimes even bypassing local suppliers entirely and purchasing farm inputs directly from wholesalers. The easier access to marketing channels typically available to larger farms also offer possibilities for bypassing local elevators and realizing higher net prices for the farmer.

Tax considerations also play an important role in farmers' decisions to expand. Cash accounting for Federal income tax purposes allows farmers to create "tax assets" available for reinvestment to expand the farm operation. For farms that have already incorporated for tax purposes, there is further incentive to reinvest accumulated earnings in the farm firm in order to avoid additional taxes on corporate retained earnings. Tax incentives for capital investment, such as investment tax credits and accelerated depreciation, lower the effective cost of investments and thus make expansion more attractive. In all cases, progressive Federal income tax rates make the income-sheltering features of the tax code most attractive to farm operators with the highest income (who typically operate larger farms), thus providing the greatest growth incentitives to farms that are already relatively large.

Finally, the desire of farm operators for higher total income provides a strong incentive for farm firm growth. With rising incomes in the nonfarm sector generally and the development of a class of farm operators who are increasingly well educated, farmers must weigh the income available from their current size of operation against increasing income opportunities outside the farm sector.

Question: Would larger farms be likely to effect reduced food prices to consumers?

Answer: Because most of the technical economies of size are captured by family-size farms, increasing the sizes of farms is not likely to result in lower food costs to consumers because of increased technical efficiency of production. In addition, because the major pecuniary economies (those do not stem from more efficient production) are tax advantages that are unrelated to farm size, such pecuniary economies are not likely to result in lower food costs for consumers.

Question: With the high cost of improved equipment, machinery, and other innovations, are farmers being forced to specialize? Is there a trend toward more specialized operations that grow one crop year after year?

Answer: The cost of modern farm machinery and equipment has been a factor in increased specialization of farm production. Equally, if not more important, has been the increased efficiency of resource use that can be obtained through specialization. Government farm programs that reduce the need for farm diversification as a method for reducing risk have also encouraged specialization. Improved communication and transportation networks that facilitate the rapid, low-cost movement of agricultural commodities over long distances have led to increased regional specialization by allowing the production of various commodities to be concentrated in the areas of greatest comparative advantage.

There has been some trend toward more specialized farm operations. Over the past two decades, this trend has been most noticeable in cash grain, cotton, dairy products, cattle feeding, and hog production.

Question: Are family farms being squeezed out of the picture because of economies of scale?

Answer: As most of the recent technological innovations have been size increasing, the number of full-time family farms that our agricultural system can support at adequate income levels has declined. Family farm operators who depend primarily on farming for their livelihood have had to do one of three things: (1) adopt new technologies and innovations to remain competitive, (2) drop out of agriculture, or (3) continue farming on a part-time basis, while supplementing their farm incomes with income from nonfarm sources. However, the farms that remain are still largely family operations, even though they have grown larger and more capital intensive over time. The ratio of family farms to all farms has remained quite stable since 1970, but the very large farms have increased their share of production, as shown in the table below:

Item	Rural Residences	Small Family Farms	Family Farms	Larger Than Family Farms
Sales Class in Constant 1980 Dollars	Less than $10,000	$10,000 to $40,000	$40,000 to $500,000	$500,000 or more
Percent of Farms				
1960	52.3	32.5	14.8	0.4
1970	49.2	24.0	26.3	0.5
1983	48.6	23.3	27.1	1.0
Percent of Sales				
1960	8.6	28.1	48.7	14.6
1970	4.8	11.3	61.4	22.5
1983	3.2	9.0	57.6	30.2

Question: How much of your effort is devoted to studies specific to small farmers?

Answer: In the research and analysis programs of ERS, small farms are studied both specifically, and as part of studies of the overall organization of the farm sector and rural communities. Work oriented exclusively to small farms accounts for approximately $45,000 and 1.0 staff-year. Total annual resources devoted to description and analysis of the structure of the farm sector and the income sources of rural families are as follows:

Research Area	Funds ($1,000)	Personnel (staff-years)
Structure of the Farm Sector	150	3
Farm Population Studies	90	2
Farm Family Income Studies	75	2
Total	315	7

MOVE

Question: What is the current status of your move? Are plans for enough along that you know the funds allocated in P.L. 98-473 will be enough to cover your costs?

Answer: The General Services Administration (GSA) has signed a lease on our behalf for a building located at 1301 New York Ave., N.W. We plan to begin moving to this building in May and expect to complete the move by the end of September. Costs for the move will be borne by both ERS and GSA. We are still discussing the distribution of the costs with GSA. If GSA pays all costs related to providing comparable space and services at the new location, it appears that the funds made available for the move will be sufficient.

CONSERVATION

Question: Who is the major user of information generated by your natural resources economics group? Will the Administration's plan to significantly reduce the Soil Conservation Service change the demand for or the value of this type information?

Answer: Analyses conducted by our Natural Resource Economics Division cover a broad array of topics ranging from land use to soil and water conservation to technology adoption and the use of manufactured inputs. Our primary clients include: the Office of the Secretary, which uses our analyses in formulating Departmental policy regarding the use of natural resource and manufactured inputs and food and fiber production, and action agencies of USDA that administer soil and water conservation and pest control programs. The public, including farmers, agribusinesses, and other interest groups, affected by these programs also look to our analyses to understand the economic consequences of alternative public policies regarding resource use in agriculture.

A major thrust of our natural resource economic studies is to analyze the public consequences of private decisions about the use of resources in agriculture and the need for public action to achieve public objectives. Consequently, we do not foresee a decline in demand for this type of analysis, even though the Administration plans to reduce the level of financial and technical assistance programs for the Soil Conservation Service and the Agricultural Stabilization and Conservation Service. The need for problem assessment, resource use and adequacy studies, and evaluations of alternative policies and program will likely increase because of reduction in conservation assistance to farmers. Farmers and landowners will need improved information on which to base their decisions following reductions in cost-share and technical assistance programs.

Question: You indicated that you have developed a new soil classification system. To what extent was SCS involved in this, and does it duplicate or reduce the value of their soil inventory and classification efforts?

Answer: The new classification system was developed as part of an Economic Research Service study to examine the consistency of Federal commodity and income maintenance programs with programs to control soil loss. The study was an outgrowth of the SCS Resource Conservation Act (Public Law 95-192) Report. The ERS system in no way duplicates the SCS system but rather draws on SCS data. SCS personnel have reviewed our reports prepared on the new system. The SCS soil inventory and classification system serves many other purposes not addressed by the ERS system. In our view, we have made the SCS information more useful for addressing specific policy issues. Also, SCS recently published a report coauthored by SCS and ERS personnel that extends the use of the system.

PROGRAM MANAGEMENT

Question: How do you set your research priorities?

Answer: We set priorities by trying to anticipate the public policy issues that decision makers in the Congress and Administration will face and about which they will need economic and social science information to make good decisions. To do that effectively, we listen to what our clientele in the Congress and Administration are saying about what they see as the important issues, as well as initiating work that ensures that there will be information available when issues emerge into the policymaking arena. We also listen to what our colleagues in universities and other research institutions are saying and observe what their agendas are so as not to duplicate publicly-funded research but to ensure that our work is complementary to theirs insofar as possible.

We try to concentrate on those issues for which we have a unique responsibility--those of national and international scope. And we try to maintain broad coverage of U.S. and global agriculture, natural resources, and rural development subjects.

Our priority-setting process is continuous, dynamic, and open, and culminates annually at a planning conference where decisions are made on priorities for the next 3-5 years, especially where longer projects are needed or lead time is required to collect data. We maintain flexibility, nevertheless, to undertake additional projects as unanticipated needs arise. But, in the process of doing that, we try to maintain a balance between protecting society's investment in longer-term research and serving the immediate needs for staff analyses.

Question: In your "Status of Program" discussion, you cite research that showed that a 90 percent increase in export demand for farm commodities would increase ground water use 52 percent and increase cropland use 18 percent. To what extent would data you generate trigger other studies; in this case, would you immediately start looking at the impact that would result from a 52-percent increase in ground water use, for example?

Answer: The extent to which a particular research study triggers additional work depends upon the nature and significance of the findings. As critical issues are brought to light and the need for additional information becomes apparent, follow-on studies are usually planned and carried out. The speed with which the follow-on work is initiated is determined by the significance of the problem discovered and our ability to shift resources from other important areas of work.

In the ground water use example, we see the need for more detailed information about the regional incidence of ground water declines and the resulting economic consequences on rural communities. Studies to provide this kind of information are being planned.

Question: What is (and should be) ERS's role as far as identifying areas of potential danger in the agricultural sector and then flagging these to the Administration, the Congress, and others? If, for example, you observe that increasing use of farm chemicals is beginning to seriously pollute water supplies, or if pivotal irrigation is affecting the surrounding watertable or water quality, what methods do you use to get this information to people in leadership positions?

Answer: The Economic Research Service's primary role is one of evaluating the economic implications of problems and of evaluating options that could be taken to abate or eliminate the problem. However, we cooperate with agencies such as the Enviromental Protection Agency (EPA), United States Geographical Survey (USGS), Occupational Safety and Health Administration (OSHA), Food and Drug Administration (FDA), and other agencies that have principal responsibility for identifying problems posing potential danger to the agricultural sector and the environment. Our major contributions are data and analyses. These activities are and have been ongoing programs in ERS. For example, when we are notified that EPA may restrict or cancel the use of a pesticide, we conduct analyses on the economic impact of such an action as it relates to costs of production, farm income, consumer prices, location of production, and other relevant factors. We have done similar analyses relating to point source water pollution, from livestock production and nonpoint source water pollution from crop production. As far as providing information to people in leadership positions, a variety of communication lines are used, including staff reports, publications, and interagency transmittal of information. Normally established channels are relied on and, in some instances, special programs have been established such as the National Agricultural Pesticide Impact Assessment Program.

Question: a. Why, in these times of budget constraints, are you spending $50,000 for a history of the Extension Service?

b. Why are you doing this study for the Cooperative State Research Service instead of the Extension Service.

Answer: The study was inadvertently referred to in the "Explanatory Notes" as a history of the Extension Service. Instead, it is a history of State Agricultural Experiment Stations. It is being financed by the Cooperative State Research Service and is being prepared with the assistance of a committee of the State Experiment Station Directors. The history is a recognition, in part, of the 100th anniversary of the Hatch Experiment Station Act. More important, it is expected to be a useful management tool for directors of the Agricultural Experiment Stations and Cooperative State Research Services.

Question: Why are your field staff-years reduced so drastically, especially in comparison to fiscal year 1984, while you are greatly increasing your headquarters staff-years?

Answer: In 1984, ERS initiated a program to refocus its research on areas of national and international scope and to leave local studies to agencies with a need for localized research. As part of this change in research focus, the ERS staff is being consolidated at our headquarters in Washington, DC. Field staff will be maintained only as it is necessary to support national studies. In order to make the redirection as orderly as possible, we decided to move field staff to headquarters as the current field activities are completed. Because a typical research project takes 2-3 years to complete, the majority of these moves will take place in 1985.

Question: How will you achieve the $555,000 management savings for fiscal year 1986? Please be specific.

Answer: We plan to take an across-the-board cut to achieve this. Each unit that is funded via our appropriation will receive a pro rata share of this cut. We are ever vigilant in identifying ways to achieve management savings, and the manager of each unit is expected to save his or her allocated account without adversely affecting ERS's programs.

Question: Virtually all other agencies are reducing their travel budgets, but you are not. Please justify this.

Answer: The policy of relocating field staff to headquarters carries with it the responsibility to pay the relocation costs for affected employees. Because these costs will increase our travel-related expenditures during FY 1985 and FY 1986, we have not projected a decrease in travel costs for FY 1986.

Question: What have been the results of the special study on the price spread between the farmer and consumer, for which $350,000 was provided in fiscal year 1985, and for which the same amount of funds is requested for fiscal year 1986?

Answer: Farmers, consumers, and the food industry have long been concerned about the spread or difference between prices consumers pay for foods and prices farmers receive. The farm-to-retail spread, representing charges for food processing and distribution, is about twice as large as the farm value for foods sold in food stores. Over the years, it has contributed more to rising retail food prices than have prices received by farmers for food commodities. Funds for the study of price spreads are used to develop and analyze several statistical series to meet the continuing demands for information pertaining to food marketing costs causes food prices to change. These series measure changes in farm-to-retail price spreads for a market basket of foods and major items such as choice beef, fresh milk, and bread, and how much of the retail price of these foods the farmer gets. A breakdown of marketing charges is made to show costs of labor, packaging, other marketing inputs, and various marketing functions.

Last year, large commodity supplies and a moderate inflation rate continued to moderate increases in food prices. Food prices, as measured by the consumer price index, rose 3.8 percent in 1984, nearly the same as in 1982 but above the 1983 increase of 2.1 percent, which was the smallest since 1967. There were several reasons for the larger rise in retail food prices in 1984. Farmers got moderately higher prices for food commodities, following a drop in 1983. Charges for food processing, distributing, and retailing rose more rapidly than in 1983. Consumer demand for food went up, reflecting a substantial rise in personal disposable income.

Last year the farm-to-retail spread rose by 3.2 percent, slightly more than in 1983. The increase in marketing charges was similar in amount to the rise in major food marketing costs including labor, packaging, and transportation costs. Higher marketing charges accounted for about half of the rise in retail food prices. The farm-to-retail spread increases for all but one major food group in 1984. For most groups, increases were moderate, continuing the pattern of the previous 2 years. The farm-to-retail spread for red meats registered a 1.6 percent decrease in 1984. However, the 1984 decreased was preceeded by a slightly larger increase for meat in 1983 than the average for all foods.

The farm value (what farmers receive) of USDA's market basket of foods rose by 5.3 percent in 1984, the first time since 1978 that the farm value increased exceeded the retail food price increase. However, because of depressed farm prices over several years, the 1984 farm value of foods was only 7 percent above the 1980 value. In contrast, retail food prices rose 17 percent over the same time period.

The farm value averaged 34 percent of the retail cost for a market basket of foods in 1984, up from 33 percent in 1983, but down from 36 percent in 1981, and 37 pecent in 1980. The farm share of the food dollar has declined in recent years because of abundant food supplies held down farm prices while retail prices continued to rise at close to the general rate of price inflation because of rising processing and distributing charges.

Additional information relating to the difference between what farmers get for food they sell, and how much consumers pay for it is reported in "What's Happening to Food Costs?" published by ERS in March 1985, a copy of which is provided for inclusion in the record. A more detailed report, "Food Cost Review, 1984" will be published in early summer. In addition, this information is regularly published in other USDA reports including the monthly Agricultural Outlook, commodity situation reports such as the Livestock and Poultry Situation, and various statistical references. The information is widely distributed and frequently used by farm organizations, consumer groups, and the news media in reporting the causes of changing food prices.

Question: Why has the authority for employment under 5 U.S.C. 3109 never been used.

Answer: That law authorizes agencies to hire experts and consultants. In recent years we have not had a need for this authority because we have been able to get the outside expertise we need through contracts and cooperative agreements.

EXPORT MARKETS

Question: What are the characteristics of major U.S. export markets (i.e. what are some of the tariff and non-tariff barriers to contend with in each market; are government agencies used to purchase and sell agricultural products, thus reducing the functioning of a free-market system; etc.)?

Answer: The major characteristics of the major importers of U.S. agricultural products are that domestic production of the imported crop is not usually large relative to domestic utilization; the United States supplies a very large share of agricultural products imported by those countries, and most of the top ten major importing countries are relatively high income, industrialized countries with relatively well-developed marketing systems.

Since the 1970's, the major growth markets for U.S. exports have been the less-developed countries, but with the exception of Taiwan, Korea, and Mexico, their total agricultural imports are still relatively small compared to the top 10 markets.

U.S. agricultural products compete in a world market in which both domestic and trade policies play a major role in determining prices, quantities traded, commodity mix, and the flow patterns of traded commodities. Many of these policies stimulate while others impede the expansion of U.S. exports.

Many of the major importers of U.S. products use government agencies to purchase and sell imported agricultural products. Use of these marketing agencies by importers often varies by commodity with wheat and rice the most highly controlled. Japan has established a government monopoly that purchases wheat, rice, and tobacco. Import quotas are also used for selected products such as beef and citrus. The PRC and U.S.S.R. have central government purchasing control of all commodities. The Mexican Government also purchases certain imported food commodities.

Tariffs play a relatively minor role in restricting U.S. access to most export markets, as compared to the widespread use of non-tariff barriers such as quotas, licensing, and variable import levies. Countries with government import agencies usually use those agencies to administer import quotas. The European Community and Spain limit imports through variable levies.

Many importer policies work to the net benefit of selected U.S. producers. For example, many developing countries, like Egypt, subsidize domestic wheat consumption, thereby increasing the demand for imports. The Soviet Union feeds substantial quantities of feed-quality wheat to livestock and has increased corn and barley prices relative to wheat to stimulate coarse grain production. However, the U.S.S.R. continues its dependence on substantial imports of food-quality wheat. On the competitor side, Argentine exporters of corn and sorghum pay export taxes of 25 and 20-percent, respectively, and convert foreign currency earnings into local currency at 70 percent of the Market Exchange rate. Thailand, which accounted for about 35 percent of world rice exports in 1983, has used trade policies for many years to restrict rice exports.

Question: How do you coordinate your activities with those of FAS and other agencies concerned with international trade and development? Are your efforts mutually supporting--do other agencies help provide the data you need for your analyses, for example?

Answer: The Foreign Agricultural Service (FAS) and the Economic Research Service (ERS) have a mutual interest in improved understanding of the global economy, country and commodity markets, factors related to demand for U.S. exports, and other related topics, as well as making the most efficient and effective use of common data, information, and expertise. The two agencies have formalized the linkages and mutual interests in a Memorandum of Understanding. To ensure the maximum complementarity between their programs on international agriculture and U.S. trade areas, the agencies have agreed that:

o FAS has the responsibility for providing foreign supply, demand, and price estimates for those countries with U.S. Agricultural Attache coverage, and for the major commodities exported or imported by the United States to support the Department's short-term outlook activities in ERS's research and analysis program. Included in FAS responsibilities in this area are the collection and processing of basic intelligence for consideration in the interagency committees and boards and the maintenance of commodity data bases and supporting software.

o ERS has the responsibility for providing domestic supply, demand, and prices estimates and maintaining the foreign country and macroeconomic and financial expertise necessary to contribute to the Department's short-term interagency outlook programs. Included in ERS responsibilites in this area are reviewing and critiquing the current intelligence collected by FAS from longer-term, country-specific and cross-commodity perspectives and providing any collateral intelligence that may be available as part of the interagency outlook process. ERS responsibilities in this area include developing the supply and demand estimates for countries not reported by U.S. Agricultural Attaches as needed to support FAS and U.S. Government food aid activities.

o ERS has the responsibility for maintaining the country, commodity, and program expertise necessary to carry on longer-term research and analysis to support Department activities in agricultural policy formulation and FAS's implementation of U.S. trade policy and management of U.S. international trade and aid programs.

The ERS also participates in joint activities with the State Department, mainly USAID, the Office of International Cooperation and Development, the World Bank, universities and other organizations and institutions interested in development and trade issues. ERS obtains information and data from many of these organizations while providing them with results of research and expertise for field support.

RURAL SOCIOLOGY

Question: A number of services to rural areas are being phased out in the Administation budget. Have any analyses been done to determine the sociological impact of the elimination of these programs. If so, what have been some of the conclusions?

Answer: We have not initiated any direct studies of the sociological impacts of phasing out Federal support for services and rural areas. However, our ongoing analyses of socioeconomic and demographic conditions in rural America suggest that rural areas have a disproportionate amount of the Nation's poor, disabled, and elderly. These groups all depend on transfer payments (especially social security and S.S.I.) for their material well-being. Moreover, rural communities tend to be small, have low population density, and are physically isolated from each other. These conditions all contribute to high per capita costs of service delivery.

WHAT'S HAPPENING TO FOOD COSTS?

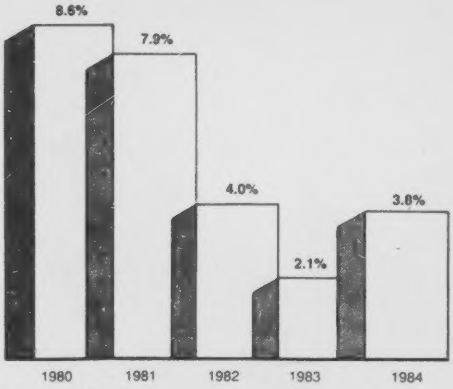
(Economic Research Service, March 1985)

What's happening to food costs? How much are they changing, and why? How much of the food dollar goes to the farmer and how much to food processors and marketers? Because of the great interest in these questions, Congress has directed the U.S. Department of Agriculture to study them regularly and report its findings. This pamphlet, from USDA's Economic Research Service, brings you up to date on the answers, focusing on developments during 1984.

Food Prices Rise Moderately Again in 1984

Large commodity supplies and a moderate inflation rate continued to moderate increases in food prices last year. Food prices, as measured by the Consumer Price Index (CPI), rose 3.8 percent in 1984, nearly the same as in 1982 but above the 1983 increase of 2.1 percent, which was the smallest since 1967.

Food Prices Continue Moderate Rise



CPI, annual averages.

This pamphlet was prepared in the National Economics Division of the Economic Research Service by Denis Dunham, and is based on a more detailed report; see page 7 for information on how to obtain it. The Economic Research Service carries out research on many aspects of food economics of concern to consumers, farmers, and the food industry.

Changes in Consumer Price Indexes for Food and Other Items

Year	Food			CPI all items	All items less food
	Total	At home	Away from home		
			Percent		
1980	8.6	8.0	9.9	13.5	14.6
1981	7.9	7.3	9.0	10.4	10.9
1982	4.0	3.4	5.3	6.1	6.6
1983	2.1	1.1	4.4	3.2	3.4
1984	3.8	3.7	4.2	4.3	4.4

Data from Bureau of Labor Statistics.

Food prices in 1984 rose more slowly at supermarkets and other grocery stores than at eating places, continuing a trend of recent years. Prices at grocery stores went up 3.7 percent while restaurant meal prices climbed 4.2 percent. Restaurant meal prices increased about the same amount as the year before, whereas food prices in grocery stores rose much more than the previous year. In 1983, prices in grocery stores rose only 1.1 percent, mainly because of very large meat supplies and a decline in meat prices.

There were several reasons for the larger rise in retail prices in 1984. Farmers got moderately higher prices for food commodities, following a drop in 1983. Charges for processing, distributing, and retailing food rose more rapidly than in 1983. Consumer demand for food, as measured by expenditures adjusted for price increases, went up nearly 2 percent reflecting a substantial rise in personal disposable income. In contrast, prices of imported foods and fish rose about the same in 1984 as in 1983.

Much of the 1984 rise in food prices was due to freezing weather that sharply reduced supplies of winter vegetables, damaged the Florida and Texas citrus crop, and disrupted livestock marketings in the Midwest. Poultry and egg producers slowed production due to low returns; that caused chicken and egg prices to rise sharply early in the year.

The CPI for food changed little after the first quarter of the year. Some prices, including those for chicken and eggs, fell sharply. The major factor moderating the rise in the CPI for food was retail meat prices. They averaged only a fraction of a percent higher in 1984, the second consecutive year of nearly stable prices. This was good news for consumers since meat accounts for a large portion of consumer purchases. Prices of most other foods were higher: fresh fruit prices were about 11-percent higher, mainly due to high orange prices.

Farmers received higher prices for most food commodities in 1984 mainly due to tight supplies in the early part of the year. The farm value of foods sold in grocery stores rose by 5.3 percent in 1984 following a 2.2-percent decline in 1983. Most of the 1984 increase in farm value reflected higher prices for poultry, eggs, fruits, vegetables, and food products derived from oilseeds. Farm value of red meats averaged 2.5 percent higher in 1984. Higher prices for the farmer caused about two-fifths of the 3.7-percent rise in food prices in grocery stores.

Much of the remaining price rise came from a higher farm-to-retail price spread, the difference between what farmers receive for food and its retail price. The price spread is the charge for processing, distributing, and retailing foods.

Last year the farm-to-retail spread rose by 3.2 percent, slightly more than in 1983. The increase in marketing charges was similar in amount to the rise in major food marketing costs including labor, packaging, and transportation costs. Higher marketing charges were the main cause of the retail food price increase, accounting for slightly less than half of the 3.7-percent rise.

Retail prices of imported foods (chiefly coffee, sugar, and bananas) and fish, which account for less than one-fifth of grocery store food sales, rose less than prices of domestic foods. Last year, prices of these foods rose an average of 2.6 percent and, therefore, contributed to the moderate rate of food price inflation last year.

Food Prices Up Less Than Average

For the sixth consecutive year, food prices rose more slowly than the CPI for all consumer products and services, 3.8 versus 4.3 percent. Among the major items in the CPI, prices of apparel and upkeep rose 1.9 percent, housing 4.1 percent, transportation 4.5 percent, and medical care 6.2 percent.

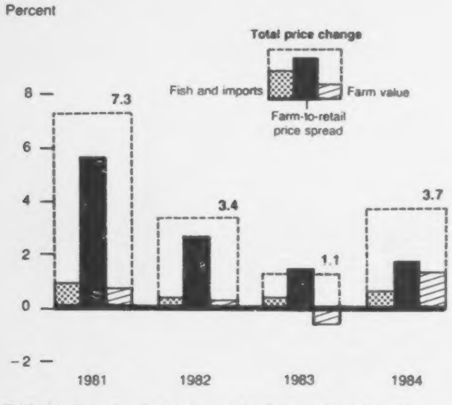
Retail Prices of Most Foods Rise

Prices of most foods that we buy at the supermarket averaged a few pennies higher in 1984. But prices of some foods were much lower at year's end than early in the year. Poultry and egg prices reached record highs in February, but declined for the rest of the year. Prices were virtually unchanged for some staple foods including milk, bread, sugar, and flour.

Here's a wrapup of price changes at the supermarket last year.

Meat and Poultry. Record large supplies held down red meat prices for the second consecutive year. Beef supplies were bolstered by continued liquidation of cattle herds. Beef cow slaughter and other nonfed cattle slaughter was particularly high. As a consequence of large supplies, retail beef and veal prices were only 1.2 percent higher last year than in 1983. Pork supplies were slightly smaller in 1984, but retail prices averaged 1.3 percent lower for the year.

Farm-to-Retail Price Spread Boosts Food Prices the Most



Total price change from food-at-home index, Consumer Price Index. Bars represent percentage point contribution of each factor to total price change.

Food Prices Rise Less Than Average

	Percentage increase
Food	3.8%
Apparel and upkeep	1.9%
Entertainment	3.7%
Housing	4.1%
Transportation	4.5%
Medical care	6.2%
CPI, all items	4.3%

CPI annual average, 1984

Poultry prices averaged 10.6 percent higher last year, partly in response to a slow rate of increase in broiler production during the first half of the year. Egg prices averaged 11.7 percent higher, mainly because egg producers cut back production early in the year in response to higher feed costs and low returns. Both chicken and egg prices dropped sharply during the year and by December prices were equal to or below those of a year earlier.

Dairy Foods. Retail prices of milk and other dairy products rose only 1.3 percent in 1984, about the same as in 1983. Fresh whole milk prices have averaged about $1.13 per half-gallon for 4 years. Prices of cheese, ice cream, and other processed dairy products rose about 2 percent in 1984, about the same as in the last 2 years.

Crop Foods. Retail prices of most foods made from crops were higher in 1984, partly because of a sharp jump in grain and soybean prices when 1983's summer drought severely damaged crops. Retail prices of fats and oils, such as vegetable shortening and margarine, averaged 9.5 percent higher.

How Register Tapes Compared
Average U.S. Food Prices

Item and unit size	1983	1984
Some prices fell . . .		
Ground chuck, 100% beef, 1 lb.	$1.73	$1.72
Bacon, 1 lb.	1.94	1.86
Frankfurters, all meat, 1 lb.	1.81	1.80
Flour, 1 lb.	.22	.21
Lettuce, 1 lb.	.55	.51
Some prices rose . . .		
Pork chops, center cut, 1 lb.	2.37	2.38
Round beef roast, boneless, 1 lb.	2.55	2.58
Apples, red delicious, 1 lb.	.59	.66
Orange juice, frozen, 1 lb.	1.37	1.62
Coffee, ground, 1 lb.	2.47	2.58
Chicken, 1 lb.	.72	.81
Eggs, Grade A large, 1 doz.	.89	1.00
Rice, long grain, uncooked, 1 lb.	.47	.48
Ice cream, regular, ½ gal.	2.16	2.22
Tomatoes, 1 lb.	.79	.81
Cookies, chocolate chip, 1 lb.	1.82	1.87
Sugar, white, 1 lb.	.35	.36
Shortening, veg. oil. blend, 1 lb.	.82	.92
Potato chips, 1 lb.	2.50	2.57
Cola, nondiet can, 16 oz.	.48	.49
Potatoes, 1 lb.	.21	.24
Others stayed the same . . .		
Bread, white, 1 lb.	.54	.54
Milk, whole ½ gal.	1.13	1.13
Tomatoes, canned, 1 lb.	.53	.53

Source: Bureau of Labor Statistics, U.S. Department of Labor.

Cereals and baked goods cost 4.4 percent more than in 1983, mostly because of increases in manufacturing and distributing costs, which account for most of their price.

The price of sugar and artificial sweeteners rose 3.9 percent, with candy and other sweets accounting for most of that. Sugar prices rose little because of ample domestic supplies and little increase in the price support for sugar.

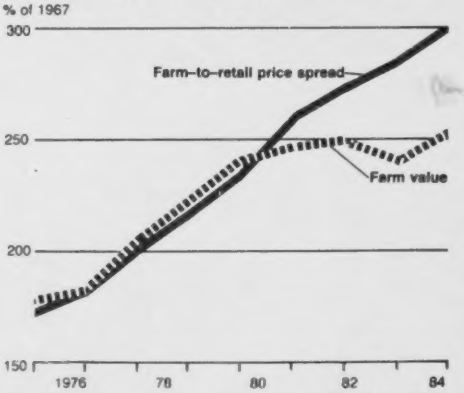
Fruits and Vegetables. Last year fresh fruit cost an average 11.1 percent more than in 1983. Fruit prices rose mainly because of much smaller supplies, particularly of oranges. Sales of fresh oranges declined by 20 percent in the 1983/84 season. Retail fresh orange prices averaged 35 percent higher in 1984.

Fresh vegetable prices rose sharply in the first quarter of 1984. A freeze in Florida and Texas in December 1983 greatly reduced supplies of some winter vegetables, particularly tomatoes and peppers. Prices of most vegetables dropped later in the year, but 1984 prices averaged 10.9 percent higher than in 1983, mainly reflecting higher potato prices—about 25 percent higher because of a small 1983 fall potato crop.

Farm Value Up

The farm value (what farmers receive) of USDA's "market basket" of foods rose by 5.3 percent in 1984, the first time since 1978 that the farm value increase exceeded the retail food price increase. However, because of depressed farm prices over several years, the 1984 farm value of foods was only 7 percent above the

Food Marketing Charges Outpace Farm Value



Farm value represents prices received by farmers for commodities equivalent to a fixed market basket of foods. Price spread is the difference between farm value and retail cost of the market basket and represents all charges for processing and distribution.

1980 value; in contrast, retail food prices had risen 17 percent over the same time.

Farm values for most commodities were higher last year. Farmers received 2.5 percent more for red meat products in USDA's shopping cart in 1984 than in 1983, reflecting stronger consumer demand for beef and pork. The farm value of fresh fruit rose by 43 percent in response to 20-percent fewer oranges sold fresh, 6-percent fewer grapes, and smaller supplies of several other fresh fruits.

A combination of production cutbacks and tight supplies boosted farm values of other commodities. For example, farmers received 66 cents for a dozen eggs sold in the store, 8 cents more than in 1983. Frying chicken also rose, by 6 cents per pound. Farm value of fats and oils rose 29 percent, mainly because of higher prices for soybeans. In contrast, plentiful wheat supplies meant that farmers received only 4.3 cents for the wheat in a 1-pound loaf of white bread selling for 54 cents in supermarkets, 0.2 cent less than in 1983. The value of other ingredients was 0.8 percent, 0.1 cent more than in 1983.

Price Changes and Farm Share for a Market Basket of Foods Produced on U.S. Farms

Year	Farm value of food	Retail store prices	Farm-to-retail price spread	Farm value share of retail price
	-------Percent change--------			*Percent*
1980	5.1	7.2	8.6	37
1981	2.8	7.7	10.5	36
1982	.2	3.6	5.5	34
1983	-2.2	.9	2.5	33
1984	5.3	3.9	3.2	34

About the Market Basket

USDA uses its market basket concept to track differences between what farmers get for the food they sell and how much consumers pay for it, commonly called the farm-to-retail price spread. The market basket contains the average quantities of domestically produced food for at-home consumption purchased in a base period. Changes in retail prices of the market basket are components of the CPI for all food, excluding imports, fish, and shellfish.

The *farm value* is the payment farmers get for the amount of raw commodities needed to produce a pound or other unit of food in the grocery store. For instance, nearly 2.4 pounds of live animal are needed to yield 1 pound of Choice beef at the grocery store.

Farm-to-retail price spread is the difference between the retail price and farm value. The price spread is the charge for processing, distributing, and retailing foods.

Farm Value Share of Food Price Increases

The farm value averaged 34 percent of the retail cost for a market basket of foods, up from 33 percent for 1983, but down from 36 percent in 1981, and 37 percent in 1980. The farm share of the food dollar has declined in recent years because abundant food supplies held down farm prices while retail prices rose faster because of rising processing and distributing charges.

Farm value percentages vary greatly among foods. Farm value is a much larger percentage of the retail price of meats, eggs, poultry, and dairy products than for most other foods. Thus, changes in prices received by farmers for these commodities usually affect retail food prices the most. For example, higher farm prices for eggs and poultry caused most of the rise in retail egg and poultry prices. Livestock prices rose very little in 1984, which accounted for the very small change in retail meat prices.

The farm value of most foods that come from crops represents a small share of the retail price. Last year, farmers received 11 percent of bakery and cereal prices, 20 percent of the retail price of processed fruits and vegetables, and 29 percent of fresh fruit and vegetable prices. Thus, even though there was a 43-percent increase in the farm value of fresh fruit, the rise in average retail fruit prices was 11 percent.

Farm-to-Retail Price Spread Widens

The farm-to-retail price spread rose 3.2 percent in 1984, about equaling the overall rate of inflation for the

Farm Value Share of Foodstore Prices

	1984 retail price	Farm value	Farm value share of retail price
Eggs, large, 1 doz.	$1.02	$0.66	64%
Choice beef, 1 lb.	2.40	1.40	58
Chicken, 1 lb.	.81	.44	54
Milk, ½ gal.	1.13	.58	52
Pork, 1 lb.	1.62	.77	48
Frozen orange juice, 12 oz.	1.22	.48	39
Sugar, 1 lb.	.35	.14	40
Potatoes, Northeast, 10 lbs.	1.91	.68	35
Oranges, Calif., 1 lb.	.50	.17	33
Tomatoes, 1-lb. can	.53	.05	9
White bread, 1 lb.	.54	.05	9
Lettuce, 1 lb.	.50	.04	8
Potatoes, frozen, French fried, 1 lb.	.67	.10	14

Computed from unrounded data.

economy of 3.7 percent as measured by the GNP implicit price deflator. This similarity arises because food industry charges for handling, processing, and retailing food commodities represent an accumulation of the costs of inputs purchased from other industries in the economy. Moreover, increases in hourly earnings of food industry workers were not too different from average wage increases in other industries.

Annual changes in farm-to-retail price spreads among food groups differ because of large variations in farm prices, the normal lag in retail price adjustment, and different rates of increase in marketing costs. Last year, price spreads for fresh vegetables and eggs rose by about 12 percent because shortages early in the year caused retail prices to soar. But that was unusual for eggs. The farm-to-retail price spread for eggs stayed at 33-35 cents per dozen from 1980-83, but rose to 37 cents last year. During this period, there also was little change in the spread between the retail price and farm value of frying chickens. Last year it was 37.5 cents per pound, only 4 cents more than in 1980.

The farm-to-retail price spread for meat products narrowed last year because slightly higher livestock prices were not fully reflected at the retail level. Price spreads for meat have gone up relatively little in the past several years.

The price spread for dairy products rose about 3.6 percent in 1984 reflecting stronger demand for processed products and a slight drop in the farm price of milk. The price spreads for bakery and cereal products and processed fruits and vegetables widened between 4 and 5 percent. These increases probably reflected rising packaging and labor costs associated with the high degree of processing these foods undergo. The price spread for poultry and fats and oils increased only 2 to 3 percent in 1984.

Price Spreads Steady for Beef, Pork

Meat	Retail price per pound	Farm value[1]	Farm-to-retail price spread	Farm value share of retail price
	-----------*Dollars*----------			*Percent*
Choice beef:				
1980	2.38	1.45	0.93	61
1981	2.39	1.39	1.00	58
1982	2.42	1.40	1.02	58
1983	2.38	1.36	1.02	57
1984	2.40	1.40	1.00	58
Pork:				
1980	1.39	.63	.76	45
1981	1.52	.70	.82	46
1982	1.75	.88	.87	50
1983	1.70	.77	.93	45
1984	1.62	.77	.85	48

[1] For quantity of live animal equivalent to 1 retail pound; for beef, 2.4 pounds and for pork, 1.7 pounds, minus byproduct allowance.

Spending on Domestic Foods at $332 Billion

During 1984, consumers spent $332 billion for foods produced on U.S. farms—$17 billion (about 5.5 percent) more than in 1983. This amount includes purchases of farm foods in foodstores, roughly two-thirds of the total, and at away-from-home eating places. However, this figure does not include the money we spent for imported foods and seafoods. Rising prices and a larger population boosted spending for domestically produced foods. Consumers bought slightly less quantity of food per person, mainly due to smaller supplies of fresh fruits. Consumers spent the most on red meat products. For 1983, the latest data available, meat purchases were 30 percent of total expenditures of farm foods.

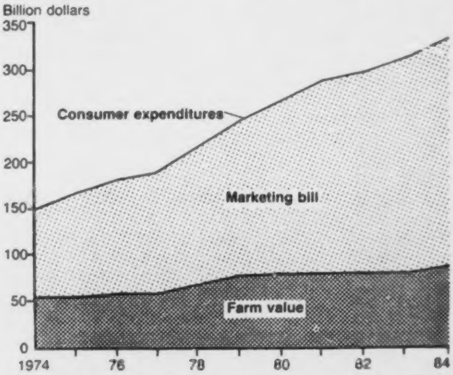
About 27 percent of last year's food spending went back to farmers, who received about $89 billion. This share is a weighted average of the 33-percent farm share of food-at-home and the much lower 15-percent

What Consumers Bought With Their Food Dollars

	Billion dollars	*Percent*
Meats	94.2	30
Fruits and vegetables	66.5	21
Dairy products	45.0	14
Bakery products	31.0	10
Poultry	16.3	5
Grain mill products	9.2	3
Eggs	5.4	2
Other foods	47.4	15
Consumer expenditures	315.0	100

1983 data

Marketing Bill Adds Most to Food Spending



For domestic farm foods purchased by civilian consumers for consumption at home and away from home.

share of away-from-home food spending. The remaining $243 billion—the marketing bill—went to the food industry for handling, processing, and retailing foodstuffs after they left the farm. The marketing bill was up by $12.5 billion in 1984, and thus accounted for nearly 75 percent of the year's increase in consumer expenditures.

Higher Labor Costs Add Most to Marketing Bill

About $5.5 billion of the $12.5 billion marketing bill increase can be traced to rising labor costs. Packaging materials and food containers added another $2 billion. Industry profits also climbed in 1984. Here is USDA's analysis of what happened to food industry costs for:

Labor. Increases in employee wages and benefits and a rise in employment boosted total food industry labor costs by 5.5 percent to $108 billion in 1984. This was about one-third of total consumer food spending, and was over one-fifth larger than the farm value.

The increase in labor costs, while a large dollar amount, represented a modest percentage increase for the third consecutive year, resulting in part from a slower rise in consumer prices that lessened wage demands. In addition, some workers, particularly in food retailing and meatpacking, gave up wage increases and benefits to enable their employers to remain competitive.

Average hourly earnings in food retailing and manufacturing rose by less than 3 percent in 1984, according to data on employment and earnings published by the Department of Labor.

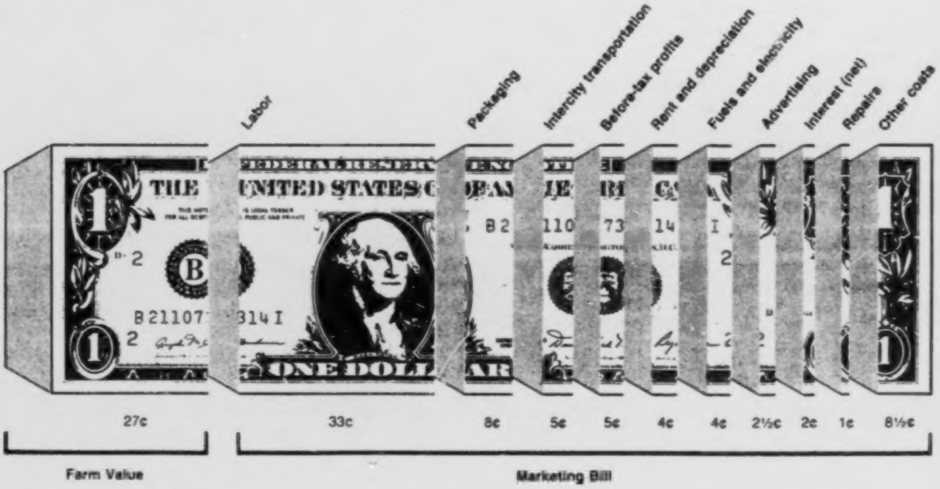
Most collective bargaining settlements in the food industry in 1984 provided for relatively small wage increases for retail foodstore clerks and meatcutters. In some markets, workers in food retailing received no wage increase during the first year of their contract. Food retailing labor costs were tempered in some instances by reduced pay for holiday and evening work, reduced benefits such as vacation time, and the relaxation of work rules that, retailers felt, hurt productivity.

Packaging. Costs for food containers and packaging materials were sharply higher in 1984 mainly because of price increases for paperboard shipping boxes and plastic materials. At $26.7 billion, these costs were 8 percent of total consumer expenditures for farm foods.

Transportation. The cost of transporting foods was $16 billion in 1984, about 3 percent more than in 1983 due to higher freight rates and a larger volume of food marketed. Railroad freight rates for food products rose about 4.6 percent; truck rates for hauling produce and other foods were held down by lower diesel fuel prices and strong industry competition from an increased number of independent truckers.

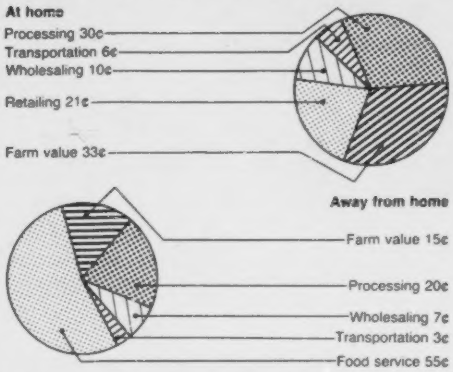
Energy. The energy bill of food processors, wholesalers, and retailers was about $13 billion in

What a Dollar Spent on Food Paid for in 1984



Includes food at home and away from home. Other costs include property taxes and insurance, accounting and professional services, promotion, bad debts, and many miscellaneous items.

Components of the Food Dollar Spent for At-Home and Away-from-Home Consumption



1984 data.

1984, about 4 percent of expenditures for farm foods. Energy costs rose sharply through 1981, but slowed markedly in the past 3 years. Last year, the rise in energy costs was slowed by large petroleum stocks that stabilized natural gas and diesel fuel prices. Electric rates, however, rose about 5 percent.

Food Industry Profits Rise

Dollar profits of the food industry rose in 1984 due to increases in sales and margins. Food industry profits before taxes from marketing foods of domestic origin were about $16 billion or 5 percent of consumer spending for farm foods.

Based on Federal Trade Commission data for the first 9 months of 1984, aftertax profits of manufacturers of food and kindred products were 3 percent of sales in 1984, the same as in 1983. Returns on stockholders' equity rose slightly, from 11.3 percent to 12.4 percent, still slightly below the long-term average rates of return for food manufacturers.

Food Industry Aftertax Profit Margins

Year	Food manufacturers	Retail food chains	Food manufacturers	Retail food chains
	Percent of sales		*Percent of stockholder equity*	
1980	3.4	0.9	14.7	13.7
1981	3.1	1.0	13.6	13.9
1982	3.1	.9	13.0	12.7
1983	3.3	1.1	12.3	13.6
1983 (9 months)	3.0	1.0	11.3	12.4
1984 (9 months)	3.0	1.2	12.4	15.4

Aftertax profits of food chains averaged 1.2 percent of sales in the first 9 months of 1984 compared with 1.0 percent a year earlier. Return on stockholder equity also went up, and was much higher for food chains in 1984 than in other years over the past decade. The reason for the increase appeared to be rising sales volume and relatively stable costs, enabling retailers to widen margins.

Food Spending Increases Less Than Income

Although food costs are rising, they are not increasing as much as total consumer income. A declining proportion of income spent for food, leaving more money for other things, is an often-used indicator of a rising standard of living.

In 1984, food spending (for domestically produced as well as imported foods and fish) was 15.2 percent of total personal disposable income, down from 15.6 percent in 1983 and 16.8 percent 10 years ago. The share declined very little in most years, especially with the relatively high food price inflation in the 1970's. Last year, moderate inflation coupled with a large boost in disposable income reduced the share of income spent on food by a larger amount than in most years over the past decade. The proportion of income spent on food varies widely by income levels. Based on 1981 data, the latest available by income group, consumers with incomes between $5,000 and $10,000 spent 24 percent of their income for food whereas consumers with incomes of $30,000 and over spent an average of 10 percent.

Would You Like More Information?

This report is based on a more detailed report, *Food Cost Review, 1984*, to be published this spring. In addition to reporting on recent development in food prices, farm-to-retail price spreads, food spending, profits, and marketing costs in the food industry, it discusses price spread changes for leading food items such as Choice beef, milk, and bread. It also includes statistical tables and charts.

To receive ordering information when the report is issued, send your name and address to Food Market Analysis, Economic Research Service, USDA, 500 12th St., S.W., Room 278, Washington, D.C. 20250.

Call Denis Dunham at (202) 447-8801 if you need further information.

STATISTICAL REPORTING SERVICE

STATEMENT OF WILLIAM E. KIBLER, ADMINISTRATOR

Mr. Chairman and members of the Committee, it is again an honor for me to represent the Statistical Reporting Service (SRS) before this distinguished Committee. The strong support you have given to the Department of Agriculture's agricultural statistics program in the past is appreciated. It is a privilege to present to you the SRS fiscal year 1986 Budget.

The SRS administers the USDA's program of developing and releasing national and State agricultural statistics. Research to improve statistical data series is also conducted. In addition, SRS conducts reimbursable survey work for other Federal, State, and producer organizations.

Data series developed by SRS are critical inputs for the development of production and marketing decisions by the Nation's farmers, ranchers, and other agribusinesses. The agricultural data are also essential in evaluating the rapidly changing agricultural industry for formulation of agricultural policy, relating to farm program legislation, administering agricultural commodity programs, and related activities.

Fiscal Year 1986 Budget Request

The fiscal year 1986 budget request is $57,179,000. This request includes an increase of $300,000 to annualize the quarterly Farm Labor Survey, for which supplemental funding is requested in fiscal year 1985. In addition, there is a net decrease of $1.5 million composed of an increase of $818,000 for annualization of the 1985 pay raise, and decreases of $426,000 for management savings and $1.9 million for the proposed 5-percent pay reduction.

Major Activities of the Statistical Reporting Service (SRS)

The principal activities of the SRS are the collection, summarization, and analyses of data and the timely release of accurate and reliable forecasts and estimates concerning agriculture. Thousands of farmers, ranchers, and other agribusiness people voluntarily participate in the regular and special surveys the SRS conducts nationwide. During each year, the SRS Crop Reporting Board releases about 350 Federal reports concerning 120 crops and 45 livestock items.

The production and marketing data that are developed and released by the SRS include: number of farms and land in farms; acreage, yield, and production of grains, hay, oilseed crops, cotton, tobacco, fruits, vegetables, floriculture, and specialty crops; stocks of grains and oilseeds; inventories and production of hogs, cattle, sheep, goats, wool, catfish, poultry, eggs, and dairy products; prices received by farmers for products, prices paid for commodities and services, and related indexes; cold storage supplies, and related portions of the agricultural economy.

The SRS has cooperative arrangements with State Departments of Agriculture and/or Land-Grant universities in the operation of the 44 SRS field offices serving the 50 States. These arrangements benefit all organizations involved through increased efficiencies and elimination of possible duplication of effort. Eighteen of the SRS State offices are physically located in State office buildings. These colocations provide increased service and data in the agricultural statistics area for State and local needs.

A research program is conducted to improve the statistical methods and techniques used to produce SRS estimates. This research is directed towards better sampling, yield forecasting, and survey techniques. Part of the program is associated with the AgRISTARS program and the use of remote sensing data in the development of new methods for acreage estimation and crop condition assessment.

The SRS also conducts surveys for other Federal, State, and producer organizations on a reimbursable basis. The survey capability that exists in this Agency can provide these services much more efficiently than the individual agencies.

The SRS is continually evaluating its estimating program by closely following changes in the structure of agriculture and assessing developments in survey, computer, and communication technology to improve the efficiency of its agricultural statistics program. In February, four data users meetings were conducted across the country to allow users to provide us evaluations for our statistical series and suggest improvements. A panel of experts from universities and the private sector is currently reviewing the statistical methodology and analysis techniques used by SRS and will report its finding in May 1985.

Program improvements included yield validation surveys for wheat and soybeans last year and new objective yield surveys for grain sorghum, rice, and sunflowers during the 1984 crop growing season. A Computer Assisted Telephone Interview system is being pilot tested in two States to provide data capture and editing capabilities along with the data collection activity. This system will improve data quality with immediate data checks and reduce processing time. Electronic dissemination of Crop Reporting Board reports was enhanced to include reports available from some of the SRS State offices.

The SRS is defining a set of statistical standards against which the estimating program can be measured and is implementing a program linking sampling procedures for various surveys. This will be an extension of the long-range plan of survey improvement actions the Agency began 25 years ago and will be consistent with the USDA's new information resources management efforts.

The reinstatement during fiscal year 1985 of some survey reductions required in fiscal year 1982 was implemented using increased appropriations provided for that purpose. The semiannual Peanut Stocks report was restored to a monthly schedule. Asparagus and Cucumbers for Pickles were restored to the Vegetables report program, and the annual Floriculture release will again be published in 1985.

The scheduled release of various 1985 major statistical reports was adjusted to be more consistent with release of the Department's economic reports. This change reduces the number of days each month on which market-sensitive information is released. This was done in response to some farmers' concerns that release of key USDA reports on different days throughout each month created confusion and uncertainty in the markets.

The SRS implemented the third portion of its five-phase crop data improvement program to convert major surveys to probability methods and meet the increasing need for more reliable and accurate forecasts and estimates. Conversion of major acreage and production surveys from nonprobability to probability methodology will be implemented in one-third of the States in fiscal year 1985, with funds appropriated by the Congress for that purpose.

The quarterly Farm Labor Survey that provides data on the farm workforce and wage rates paid for several categories of workers has been reinstated as of October 1984 at the request of data users and the Department of Labor. These data are used by Labor to administer its program of adverse effect wage rates for foreign nationals brought into the U.S. to work on farms. Supplemental funding of $1.6 million for fiscal year 1985 and an additional $.3 million in fiscal year 1986 are requested to implement this program.

This concludes my statement, Mr. Chairman, and I will be happy to respond to your questions.

QUESTIONS SUBMITTED BY SENATOR COCHRAN

USER FEES

Question: Since user fees were initiated in 1982 for your crop and livestock estimates, has there been any change in the number of requests for these reports?

Answer: The charging for printed copies of reports has decreased the sizes of our mailing lists considerably, but has not reduced the actual use of the data. Individual users are now finding it efficient to more broadly share copies of their reports. Our electronic transmission of nearly all reports to the media and others who further distribute it through newsletters, magazines, etc., has also helped fill this gap.

Question: Do you feel the information is still getting to all who would find it useful in their management decisions, including farmers facing financial difficulties? Have you done any analysis of who is using the information today?

Answer: We feel the information is still reaching all who would find it useful in their management decision. Nearly all of our reports are transmitted electronically to the media and others who often add analysis and outlook for further distribution of the information through newsletters, magazines, newspapers, etc. This has helped speed up delivery to the user as well as broaden the scope of delivery. Farmers and agribusinessmen who are respondents to our surveys still can receive reports without charge. While no formal studies have been conducted, we do know that distribution of reports to survey respondents has remained at about the pre-1982 levels. In addition, input from recently held data users meetings indicates that the reports are receiving wide distribution. The principal concern data users now express is the lack of responsive service from GPO with subscription renewals, address changes and timely mailings.

DATA RELIABILITY

Question: To what extent is the changing rural scene today affecting your survey methods?

How do you ensure that your survey samples are representative and that they are providing reliable data?

Answer: The Statistical Reporting Service is fortunate that much of its survey program is now on a strict probability sampling basis. If the number of farm operations and the makeup of operations are changing more rapidly than previously, the probability procedures still provide a solid representation of all types of operations. More rapid changes might mean that our sampling procedures are not as efficient from a cost standpoint.

State Statistical Offices update their lists of farm operations at least annually with all available information which allows for current selection of stratified samples. Names and address updates are made at least monthly.

Question: Do you anticipate having to increase your validation efforts or make other changes in your methodologies to keep up with the changing structure and complexity of agriculture?

Answer: The Statistical Reporting Service did receive Crop Data Improvement funding in Fiscal Year 1985 to begin placing its last major crop acreage, yield and production surveys on a probability basis. This full program will be phased in over a period of years as funds become available.

Experience from these efforts will allow the Agency to shift additional States and surveys to probability sampling as rapidly as funding allows.

Experience from objective yield surveys indicates the advisability of including periodic validation surveys to be sure that survey relationships have not changed over time. A similar periodic validation should be planned into crop and livestock probability surveys.

LONG-RANGE PLAN

Question: What progress has been made to date as far as implementing your Long-Range Plan?

Answer: Initial work has begun on strengthening the statistical standards in five of the nine areas outlined in the Long-Range Plan. These are data collection, data editing, survey summarization, analysis, and quality control. Work in these areas will be completed in 1985.

An Integrated Survey Program which was designed to reduce respondent burden and survey costs was pilot tested in three States (Arizona, Illinois, and Tennessee) during 1984 and was expanded to nine additional States (Georgia, Indiana, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Carolina, and Ohio) in 1985.

A Computer Assisted Telephone Interview (CATI) system was pilot tested in two States (California and Nebraska) to provide data capture and editing capabilities along with the data collection activity. Eight additional States (Alabama, Georgia, Indiana, Louisiana, Mississippi, Pennsylvania, Tennessee, and Washington) will begin using the system in 1985.

Question: What plans do you have for continuing into fiscal year 1986 the implementation of this plan? What activities do you plan to undertake next year?

Answer: Three task groups were appointed to develop plans to implement some of the remaining Long-Range Plan recommendations.

1. A plan was developed in late 1984 for an Agency information management system for providing improved automation for sampling, survey preparation, data capture and edit, data summary and analysis, and data dissemination. Agency resources are being directed to allow a portion of the plan's implementation.

2. The Agency structure and identification is being evaluated in light of changing survey technology, computer capabilities, and electronic communications. The Headquarters and SSO structures are

being reviewed to improve assignment and delegation of responsibilities, decentralize decisionmaking where appropriate, improve communications, strengthen cooperative State agreements, and reduce operating expenses. Recommended improvements will be presented later this spring.

3. The current Crop Reporting Board standards and procedures are being reviewed to identify changes needed to strengthen the analysis and security of market sensitive data. Specific recommendations will be presented by mid-1985.

Identified initiatives will be accomplished by existing personnel within planned budgets through redirection of some Agency resources.

Question: Have you been able to observe any benefits from the changes already implemented as far as efficiency or accuracy of your services?

Answer: The total cost of surveying associated with the integrated survey program for May-December 1984, increased by $103,000 over the comparable period of 1983. Most of the increase is due to conducting more frequent probability sample surveys in two of the pilot survey States as part of the crop improvement efforts. Sample sizes were larger during the first year of testing than may be required operationally. Several nonprobability sample surveys are being continued on a parallel basis during testing. As these older surveys are discontinued, savings will be made to help offset the increased cost.

The main efficiencies gained by using CATI occur in post-interview processing. Since data are entered directly into a computer during the interview, the separate data entry step needed for non-CATI surveys is eliminated. With CATI, data are edited for consistency during the interview so additional machine edits and manual reviews are potentially reduced. CATI also permits analysis of reported data to identify "data problems" prior to summarization thus saving the additional processing cost for any data resummarization.

The primary cost savings from CATI will be the reduction in full-time data entry staff. It is projected by the end of FY 1987, when 20 States are expected to be operational on CATI, there will be an annual reduction in staff salaries for data entry operators of $250,000. This savings may be partially offset by additional CATI support staff. Further savings are expected when all 44 Agency field offices are operational on CATI. Cost savings associated with improved data quality and less reprocessing are anticipated but have not been measured.

QUARTERLY FARM LABOR SURVEYS

Question: You propose going from an annual Farm Labor Survey to a quarterly survey. On what basis have you determined that you need to increase the frequency this much?

Answer: The size and makeup of the farm labor force changes during the year. In order to adequately reflect seasonal labor needs and wage rates, it was determined that at least three surveys were needed to represent the spring, summer, and fall agricultural activities and a winter survey was needed for States harvesting fruits and vegetables during the winter months.

Question: Wouldn't simply doubling the data available by going from annual to twice-per-year surveys provide sufficient information to do adequate Adverse Effect Wage Rates?

Answer: Two surveys a year would certainly be better than one. However, this would still miss many seasonal activities so the question of adequate coverage of types of work could still be raised when setting the Adverse Effect Wage Rates. Actually, for a higher degree of reliability, monthly surveys would be desirable, but most data users are willing to use quarterly information.

Question: How are Adverse Effect Wage Rates used?

Answer: Adverse Effect Wage Rates are minimum rates to be paid nonimmigrant aliens (H-2 workers) to prevent adversely affecting the wages of similarly employed United States workers. The Department of Labor must certify to the Immigration and Naturalization Service that there is an insufficient supply of U.S. workers and the jobs offered to the H-2 workers will not negatively impact similar U.S. workers.

Question: What is their importance?

Answer: H-2 workers are temporary workers imported by agricultural producers to help harvest sugarcane, fruits, vegetables, tobacco and to herd sheep. For these producers, labor costs are a major production expense, and they are concerned that rates are fairly established.

Question: Why are you requesting an increase in funding for this purpose at a time when there is tremendous pressure to reduce spending?

Answer: From 1968 to 1981 the USDA-SRS Quarterly Farm Labor Survey data were used to adjust the Adverse Effect Wage Rates for agricultural workers. The Quarterly Farm Labor Survey program was reduced in 1981 to an annual basis because of budget cuts at Agriculture and Labor. The Department of Labor used an alternative source of data during the 1981-84 period. This data source has been challenged in Federal Court and ruled to be inadequate. Agricultural employers and agricultural worker organizations both want a reliable and unbiased data series to be used to establish the AEWR's. In addition to providing data for determining the AEWR's, the more frequent surveys will strengthen the national labor force data, labor costs and farm income estimates.

Question: Why is the Farm Labor Survey classified under Crop and Livestock Estimates rather than Statistical Research and Service?

Answer: The Farm Labor is an ongoing survey and is not a research survey. Crop and Livestock Estimates includes labor, prices and expenditure surveys.

Question: Why is this survey not done by the Bureau of Labor Statistics?

Answer: Agriculture worked with the Department of Labor in developing the most responsive expanded program. The two departments agreed that Agriculture would be responsible for the survey and be funded directly rather than transferring funds from one department to another. SRS has an established data collection capability for agricultural surveys and the survey information is quickly summarized and published.

FARM COSTS AND RETURNS SURVEY

Question: What was the response of farmers to the 1984 Farm Costs and Returns Survey?

Answer: Nearly three-fourths of the farmers and ranchers contacted for this survey responded favorably. This was much improved from the two-thirds response during the 1983 Farm Production Expenditure Survey. This response is very good, considering that the questionnaire consisted of up to 31 pages, and interview time ranged from 30 minutes to as much as 8 hours. Many farmers realized this was an excellent opportunity to provide a complete picture of the economic well-being of the farm sector.

Question: Have any conclusions been ascertained from the survey?

Answer: The Statistical Reporting Service conducts this survey in cooperation with the Economic Research Service. SRS will publish the Farm Production expenses reported in the survey on June 25. The data was provided to ERS for further analysis and publication of additional economic reports about the farm sector. This year they will also prepare more detailed data on the financial condition of the farm sector.

QUESTIONS SUBMITTED BY SENATOR ANDREWS

HONEY

Question: What does the Statistical Reporting Service use as a survey group to compile figures on U.S. Honey production?

Answer: Currently the Statistical Reporting Service does not compile honey production or price estimates. The program was discontinued in 1982 when Agency funds were reduced. Honey producers were surveyed in 1981 and prior years to obtain information on number of colonies, production and prices.

Question: How can the price support level for honey be calculated without having market price data for the 10-year period as specified in the parity calculations?

Answer: The honey parity price for 1985 was computed using 10 years of prices in accordance with section 301(a) of the Agricultural Adjustment Act of 1938, 7 U.S.C. 1301(a). The prices used for 1982, 1983 and 1984 were the average support prices. Survey data were not available and market news data were very incomplete. Published survey estimates were used for the earlier years.

About one-third of 1982 production was forfeited to the Commodity Credit Corporation (CCC). Over half of the 1983 production was acquired by CCC and a large proportion of the 1984 production is expected to be forfeited. With this high proportion of the production forfeited, the open market price should be near the support level. This follows the intent of the legislation for prices to represent the average prices received by the producers.

For computation of the 1984 honey parity prices an 8-year average price series was used and for 1983 a 9-year series was used. The honey prices are deflated to a 1910-14 price using the Index of Prices Received by Farmers on the 1910-14=100 base for the same series of years that are used for prices. This means that more or less than a 10-year period could technically be used. For 1983 and 1984, when no survey estimates were available, it was believed that 9 and 8 year averages would provide acceptable estimates for the adjusted base price.

Question: Since the Honey Program is currently an $85 million program, are there any plans to update the data base for the program, making projections of the actual marketplace more accurate?

Answer: If the 1985 Farm Legislation requires that parity prices be used for the honey program, then the Department will need to reinstate an estimates program for honey.

BARLEY

Question: Is current price and sales information collected on a monthly basis for the major crops in the U.S.?

Answer: Yes, prices producers receive for nine grain crops (corn, soybeans, wheat, rice, grain sorghum, barley, oats, flaxseed and sunflower) are estimated monthly from a probability sample of mills, elevators, and grain buyers that purchase directly from producers in 35 States. The States for which estimates are published account for about 90 percent of the crop sales. Sampled firms are asked to report quantities purchased from producers and the total dollars paid for the grain. Quantities purchased are used to weight the price information and to estimate the monthly distribution of sales.

Question: Why is the 5-month period of June through October used to calculate deficiency payments when most barley is harvested starting in mid-July?

Answer: Use of the first 5 months of the marketing year was specified in the Food and Agriculture Act of 1977. The marketing year for barley is the same as used for wheat, June 1-May 31. This is defined by the Agricultural Adjustment Act of 1938 as amended by P.L. 94-61, 89 Stat. 302, July 25, 1975.

Question: In deriving deficiency payments, are current year price and sales information used?

Answer: Yes, the national weighted average market price received by farmers during the first 5 months of the marketing year is based on purchases during those months. The monthly prices are weighted by the expanded marketings obtained from the monthly probability grain price survey. Thus, both prices and marketings are based on current survey information.

Question: Is the detailed price and sales information the SRS uses in calculating deficiency payments available to the public under the Freedom of Information Act?

Answer: When the 5-month average price is published, the U.S. monthly prices and the percent of sales by month are also published. Grain prices by State are published monthly in Agricultural Prices and percent of sales by month and by State are published in the December issue of Crop Production. Individual reports on quantities purchased and dollars paid (submitted by firms purchasing commodities) are held confidential under the Privacy Act. The reports are not available under the Freedom of Information Act.

WORLD AGRICULTURAL OUTLOOK BOARD

STATEMENT OF JAMES R. DONALD, CHAIRMAN

Mr. Chairman and Members of the Committee, it is my pleasure to appear before you today to discuss the fiscal year 1986 budget request of the World Agricultural Outlook Board.

Overview

The World Agricultural Outlook Board (WAOB) plays a critical role in the U.S. Department of Agriculture's (USDA's) ongoing effort to ensure that its commodity information system responds to today's rapidly changing world agricultural sectors. The purpose of the WAOB is twofold: to provide the most accurate, objective and timely economic intelligence on worldwide developments which influence the U.S. agricultural system; and to speed the flow of that information to producers, consumers, policymakers and the general public.

WAOB's main function is to coordinate and review for accuracy and consistency all USDA estimates and analyses relating to international and domestic commodity supply and demand conditions. WAOB maintains liaison with international organizations, such as the United Nations Food and Agriculture Organization, and domestic agencies, such as the Commodity Futures Trading Commission.

WAOB is the Department's focal point for weather and climate information and weather-based impact assessment; these monitoring activities within USDA are coordinated by the WAOB Chairman. Remote sensing activities in USDA also are coordinated by the WAOB Chairman. Space sensors and ground-based sensors which communicate through space relay systems have the potential to improve the accuracy and timeliness of earth resources data and crop condition information now collected on the ground.

Specific Functions and Progress

WAOB has continued to improve its ability to integrate information from the Department's world agricultural intelligence system. WAOB chairs the Interagency Commodity Estimates Committees (ICECs) and seeks to expand each ICEC's analytical role in current condition and impact assessment. These committees include representatives of the Economic Research Service (ERS), Agricultural Stabilization and Conservation Service (ASCS), Foreign Agricultural Service (FAS), Agricultural Marketing Service (AMS), and WAOB. All committee members are USDA professionals with responsibility for developing official estimates of supply, utilization and prices for the major agricultural commodities. It is through the interagency membership of these committees that the various USDA agencies work together in a coordinated effort. Development and use of new analytical tools and evaluation of forecasting performance has become an ongoing responsibility of each committee.

Weather, as much as any economic or policy development, continues to be a significant and most unpredictable variable underlying agricultural production and prices. Consequently, USDA places a high priority on incorporating weather-based impact assessment information into all analyses. The focal point is the Joint Agricultural Weather Facility (JAWF), operated jointly by the Board and the National Oceanic and Atmospheric Administration (NOAA). This facility, located in the South Agriculture Building, hourly monitors and assesses global weather events and their probable impact on agricultural output. JAWF analyses are a key ingredient in much ICEC work.

Key agricultural areas in every major producing country, including the United States, are identified by JAWF, and meteorological data from relevant weather stations around the world are analyzed daily relative to the stage of crop development. High-speed computer systems are used to process, analyze and disseminate information for public distribution, primarily through the Weekly Weather and Crop Bulletins.

In addition to regular briefings and reports, JAWF provides special alerts when critical weather events may affect U.S. or world agriculture. This early warning capability diminishes the likelihood that farmers and other participants in the agriculture system would be caught off guard by a crop failure or some other significant global event related to agriculture. This system was of crucial importance in the past year to policymakers in USDA, other members of the Administration, and the Congress, with assessments ranging from the impact of dry weather last summer on Soviet grain production to the effects of the Florida freeze this year on citrus and vegetable supplies from Florida, Brazil and Mexico.

Since 1979, when WAOB began coordination of an interagency effort that led to the development of a monthly World Crop Production report, the report has been prepared under secured (lock-up) conditions. This was the first USDA publication to provide integrated forecasts of crop production in all major world growing regions.

The second stage in the integrated system's evolution was the implementation in October 1980 of a procedure to develop and release the World Agricultural Supply and Demand Estimates report, either following the monthly World Crop Production report or after significant events affecting the global supply/demand balance. This report provides a complete assessment that includes supply/demand balances for all major commodities of other primary producing and consuming countries and the implications for trade, as well as supply/demand information of the overall domestic livestock/feed complex.

With world meat consumption on a steady trend upward and continued strong efforts to upgrade diets in many countries, including the USSR, it became critical that the integration of U.S. and world supply and demand estimates for crops as well as livestock be completed. Thus, the third stage of the integrated system's evolution occurred in fiscal year 1983 with the addition of livestock estimates.

This information, along with U.S. crop estimates, then is released to the public after the commodity markets have closed. Secure conditions are maintained during report preparation to prevent premature or illegal access to the data. By releasing the information immediately after the market closes, all users have simultaneous access to the data.

The fourth stage occurred in January 1985 when major elements of the World Crop Production report were incorporated into the World Agricultural Supply and Demand Estimates report. There is only one monthly global lockup report of this nature, and it is released on the same day as U.S. Crop and Stocks reports. The Foreign Agricultural Service still publishes a world production report as an expansion of data included in the supply and demand publication. However, by integrating major facets of both reports and releasing the world data concurrently with domestic reports, WAOB responded to users' desire to receive maximum commodity information on a timely basis while minimizing potential repeated reactions to the market caused by frequent release of sensitive information throughout the month.

Recent Activities

The Crop Reporting Board of the Statistical Reporting Service and the WAOB continued co-location in a single lock-up facility to maximize security conditions for compilation and analyses of world crop data and supply/demand estimates. This physical arrangement with the Crop Reporting Board facilitates interaction between domestic and international assessment activities and eliminates the movement of highly sensitive data between two separate lock-up areas.

While striving to enhance analytical capability, we recognized that the potential and demand for rapid information dissemination expanded tremendously in recent years. We are taking increasing advantage of opportunities which exist to improve the timeliness of our information. We continue to review the alternatives available for placing information from the World Agricultural Supply and Demand Estimates report into the hands of farmers and other users as quickly and effectively as possible. Alternatives include effective use of Extension Service personnel, land grant universities, State farm organizations, and others. The World Agricultural Supply and Demand Estimates report is transmitted electronically upon release at 3 p.m. to all States which have access to the USDA extension information system. Also, since the telecommunications field expanded rapidly in recent years, we further tapped that technology by increased electronic dissemination of the reports.

As part of its effort in information dissemination, WAOB again directed USDA's annual Agricultural Outlook Conference, the 61st in USDA history. Nearly 1,300 representatives of Government, agribusiness, academia, and the press attended the conference which afforded major emphasis on the coming farm policy debate.

Budget Request

Our total budget request for fiscal year 1986 is $1,619,000. This represents a decrease of $57,000 below the fiscal year 1985 level of $1,676,000. This decrease is composed of several items. We are requesting additional funds of $64,000 for the acquisition of data processing equipment; $11,000 for annualization of the pay increase effective in fiscal year 1985; and $11,000 for increased operating costs. Our requested increases are offset with proposed decreases of $50,000 in LANDSAT funding made available to other USDA user agencies for acquiring remote sensing data; $32,000 for management reductions; and $61,000 for the 5-percent pay reduction.

This concludes my statement, Mr. Chairman. My associates and I are prepared to answer any questions you may have concerning the WAOB programs and budget request.

QUESTIONS SUBMITTED BY SENATOR COCHRAN

JOINT AGRICULTURAL WEATHER FACILITY (JAWF)

Question: JAWF currently publishes a Weekly Weather and Crop Bulletin (WWCB) and, using this information the WAOB publishes a weekly news release covering highlights of weather and crop developments. Isn't this a duplication of effort? Couldn't one report suffice?

Answer: In December 1984 we discontinued publishing the weekly highlights.

Question: What use is made of this weather crop information that makes a weekly compilation necessary? Would a monthly summary serve the same purpose?

Answer: The Weekly Weather and Crop Bulletin provides a hard copy summary for about 2,500 paying subscribers that do not have the capability to receive reports electronically. Agribusiness and farmers follow the crop developments nationally and internationally and use this information in making production estimates and marketing decisions. Since crop yield potential can change significantly in a period of shorter duration than 30 days, monthly summaries are not sufficient. Crop yield models developed using monthly data also have proven to be totally inadequate for estimating the impacts of short-period weather events that quickly alter yield and production potential.

Question: A significant amount of staff and fiscal resources seem to be devoted to JAWF. Why is this given such emphasis? Why is this such a valuable activity to warrant this attention in relation to your other activities?

Answer: The mission of the JAWF is to keep farmers, agribusiness, policymakers, and USDA commodity analysts abreast of current global weather developments. In order to provide timely and accurate crop assessments, a large volume of data must be closely monitored and analyzed. JAWF maintains an early warning capability by processing data from as many as 8,000 global weather stations daily. This information is complemented by detailed information on cropping patterns, plant growth cycles, and historical crop yields which are updated by JAWF analysts. This information is disseminated to end-users in an expeditious manner.

LANDSAT

Question: You have proposed cutting funding for acquisition of LANDSAT data in half, with user agencies absorbing the difference. Given that almost all agencies are facing budget cuts, is it feasible that they will be able to pick up this added cost?

Answer: Funds were made available initially by WAOB to other USDA agencies for purchase of LANDSAT data as seed money to introduce user agencies to the data. User agencies are now beginning to pay for LANDSAT data from their own funding as needs arise. We believe that the added cost to user agencies will not be significant in terms of total program costs and that each user agency will be able to absorb the relatively minor sums entailed in the cut.

Question: What would be the impact if agencies cannot absorb any costs associated with acquisition of LANDSAT data? Would work be able to continue effectively?

Answer: Both research and operational activities will be able to continue if agencies cannot absorb costs of LANDSAT data heretofore covered by transfer of funds from WAOB. Some research activities are nearing completion; other research and operational activities are shifting as USDA considers other remote sensing systems as data sources. We believe that agencies could minimize any negative impact by shifting to alternative sources of data.

ELECTRONIC DATA TRANSFER

Question: What has been users' reactions to electronic data tranfers?

Answer: Users who receive our reports electronically are universally pleased with this system. The timeliness factor, so critical to the various users of USDA statistical reports, is improved greatly through electronic transmission. Where users previously had to wait days for mail delivery, they now have their data within minutes of its release. We see this method as the only logical future means for dissemination of agricultural economic information. However, a major educational effort still will be needed throughout the agribusiness sector to convince users of the benefits of electronic transmission.

AFRICAN AGRICULTURAL SITUATION

Question: To what extent has the Board been involved in the forecast of commodity needs in Africa, especially during the famine?

Answer: WAOB has responded to the increased need for timely information on potential crop failure in famine-plagued Africa by expanding its routine monitoring and assessment program to cover the entire continent. Prior to last fall, JAWF primarily focused on northwestern African grain areas and the major corn producing area of South Africa while providing only a general overview of agricultural weather over the remainder of the continent. In response to a request by the Economic Research Service (ERS), JAWF expanded its routine coverage to provide the necessary data. ERS has been assigned lead responsibility with respect to accomplishing a Presidential Initiative aimed at providing improved information on food needs in Africa. The information derived from this effort is disseminated at an interdepartmental monthly briefing attended by representatives of USDA; Department of State, Agency for International Development; Office of Management and Budget; and the Central Intelligence Agency.

RELIABILITY OF FORECASTS

Question: How reliable have your crop and weather forecasts been over the past few years?

Answer: The reliability of our crop forecasts varies by country and commodity. The error term associated with most initial estimates ranges between 2-10 percent. For countries subject to wide year-to-year weather variations, pre-season or early season forecasts may differ from final estimates by 15-20 percent. As more weather and economic data are gathered, the reliability improves quickly as the crop season progresses. Several months prior to harvest, our forecasts are generally within 4-5 percent of the final estimate.

JAWF does not make weather forecasts as that is a responsibility of the National Oceanic and Atmospheric Administration (NOAA), National Weather Service. While global monitoring and data analysis can provide accurate assessments of current conditions and potential scenarios for the near future, prediction of events based on forecasts is another matter. Weather phenomena, such as drought and heat waves, develop slowly while others, such as floods and freezes, often develop rapidly. The latter short-term events can be forecast with some accuracy based on careful scrutiny of current weather patterns. The former long-term events can only be identified by careful monitoring of persistent conditions which evolve slowly into problematic situations.

GENERAL ACCOUNTING OFFICE

STATEMENT OF JOHN H. LUKE, ASSOCIATE DIRECTOR, HOUSING AND COMMUNITY DEVELOPMENT PROGRAMS, RESOURCES, COMMUNITY, AND ECONOMIC DEVELOPMENT DIVISION

We appreciate the opportunity to assist your Subcommittee in considering some of the important issues surrounding the Farmers Home Administration (FmHA) section 502 single-family homeownership program. As you may know, we are in the final stages of completing a study of FmHA's efforts to reduce housing costs and better target program assistance to rural households. My remarks today represent preliminary observations on the results of our current study.

The objectives of our study were to determine

- --who is benefitting from the housing program and what type of housing assistance they are receiving,
- --what actions FmHA has taken to target assistance to lower income households, and
- --what opportunities exist to reduce program costs.

To accomplish these objectives, we analyzed FmHA's housing loan activity for fiscal years 1983 and 1984. Specifically, we analyzed data on more than 120,000 housing loans made under the section 502 program during these 2 years, obtained information through questionnaires sent to 285 randomly selected FmHA county offices, and visited 15 of the 285 county offices in 15 states. Additionally, we interviewed selected FmHA national, state, district, and county office representatives; builders; realtors; and representatives from local financial institutions. We also talked with other knowledgeable people from rural housing interest groups and the Department of Housing and Urban Development (HUD).

Our research indicates that there is still significant need for housing among low-income rural households (those with incomes less than 80 percent of area median income). These observations are based on Census data, the American Housing Survey, and FmHA data. Although the 1,900 county offices which make loans under the program provide a viable delivery mechanism for housing services, our analysis of FmHA's performance in 1984 shows mixed results. Specifically, FmHA

--increased its assistance to very low-income households (those with incomes less than 50 percent of area median income) from 24 percent in 1983 to 30 percent in 1984,

--made 14 percent fewer housing loans in 1984 than it did in 1983, and

--did not implement housing-cost-reduction measures at the county level which could have enhanced targeting to very low-income households.

There are a variety of measures which might be taken which would help improve program targeting and reduce cost, such as:

--implementing outreach efforts to very low-income households and households living in substandard housing (lacked complete plumbing or overcrowded);

--reducing housing costs by eliminating amenities, matching the number of bedrooms to household size, limiting the amount of living and nonliving areas, and providing financing for more townhouses, duplexes, manufactured/ mobile homes and existing houses from the private market;

--extending the mortgage period from 33 to 38 years;

--modifying the eligibility rules to allow some very low-income borrowers to pay less than 20 percent of their income for housing; and

--changing the procedures used to encourage borrowers, who have sufficient income, to refinance their loans with private credit.

In my statement today, we take no position on whether or not subsidies should continue to be made available to facilitate low and very low-income homeownership under the section 502 program. Rather, if the Congress wishes to continue to provide such subsidies and target assistance to the most needy, there are opportunities to improve targeting and reduce costs.

BACKGROUND

Under the section 502 program, FmHA acts as a direct lender in rural areas. The rate at which FmHA makes loans is referred to as the note rate. Subsidized borrowers pay at least 20 percent of their income toward mortgage principal and interest plus taxes and insurance (PITI). The difference between the borrower's mortgage payment and the payment due at the note rate is a subsidy to the borrower called an interest credit.

As the borrower's income increases, the effective interest rate the borrower pays increases and the subsidy decreases. When the borrower's income increases to a point where the effective interest rate equals the note rate, then the borrower's payment stabilizes.

In recent years the Congress has been concerned with FmHA efforts to minimize the costs of housing subsidized under its programs. In addition, the Congress has placed increasing emphasis on targeting assistance to those most in need of adequate housing in order to make the best use of funds being provided. In this regard, 1980 Census data showed that of 27.5 million total rural households, 6.5 million were very low-income households--those whose incomes do not exceed 50 percent of area median income. In addition, 2.1 million rural households occupied substandard housing units.

As of August 2, 1984, FmHA had about 1 million loans outstanding, with balances of over $21 billion, including 462,000 loans totaling $11.3 billion with interest credit and 635,000 loans totaling $9.8 billion without interest credit.

SECTION 502 BENEFICIARIES AND WHAT THEY PURCHASED

The majority of the section 502 beneficiaries in fiscal year 1984 were white, three or more person households, headed by persons under 35 years of age with a median income of $11,400. They primarily bought new, 3-bedroom homes having an average of 1,080 square feet of living area. The median purchase price of all homes financed in 1984 was approximately $40,700.

Our analysis of FmHA data showed that:

--The majority of homebuyers were under 35 years of age (72 percent), in households with more than two persons (60 percent), and nonminority (80 percent). (See exhibit A.)

- --Slightly over half of the homebuyers had incomes between $10,000 and $15,000 (52 percent) while most had less than $5,000 in assets (83 percent). (See exhibit B).

- --The majority of units purchased were built or purchased new (53 percent). Most units had three or more bedrooms (86 percent) and were priced between $30,000 and $50,000 (83 percent). (See exhibit C.)

On the basis of our visits to FmHA county offices in 15 states, we found that section 502 borrowers were employed in a wide range of occupations, such as sales clerks, waitresses, teachers, and welders (See exhibit D.)

We also compared the demographic and housing characteristics of section 502 beneficiaries to all rural homebuyers with comparable incomes. Because the incomes of the section 502 homebuyers generally cannot exceed 80 percent of area median income, we obtained data from the American Housing Survey on rural homebuyers with such incomes. The comparison provides some perspective on what similar homebuyers purchased without FmHA subsidies.

On the basis of our review of the American Housing Survey data, we found that 44 percent of the low-income rural homebuyers purchased mobile/manufactured homes and 12 percent bought houses considered substandard. Low-income rural homebuyers were more likely to purchase existing homes (77 percent) and homes with two bedrooms or less (54 percent). (See exhibit E.) In contrast, section 502 homebuyers generally purchased new homes (53 percent) and homes with at least three bedrooms (86 percent).

In comparing the demographic characteristics of the two groups, we found that section 502 households were generally younger and had more family members. Also a greater proportion of the section 502 households were minorities and had higher incomes than other low-income rural homebuyers. (See exhibits F, G, H, and I.)

INCOME TARGETING

The Rural Housing Amendments in the Housing and Urban-Rural Recovery Act of 1983, enacted November 1983, mandated that not less than 40 percent of the housing units financed on a national basis under section 502 and not less than 30 percent of each state's housing units be provided to very low-income people.

In response to this mandate the FmHA national office provided guidelines to county supervisors for increasing the number of housing units financed to very low-income households. These guidelines provided for outreach efforts to identify needy very low-income applicants and a cost-reduction effort to make housing more affordable for households at this lower income level.

As you know, after the 1983 amendments were passed, the Congress began to hear complaints about the way FmHA was implementing the amendments. Specifically, FmHA took the position that the 40-percent target ratio had to be maintained throughout the year. This essentially required that the first two of every five loans had to be made to very low-income households. According to FmHA, a shortage of qualified very low-income applicants in some areas of the country restricted the number of loans that could be made. Hearings were held concerning problems in administering the 40-percent target which, according to FmHA and others, had slowed or shut down the program in some counties.

In response to the concerns, the Congress eased the 40-percent rule temporarily in the July 1984 Supplemental Appropriation. This change, which applied only to fiscal year 1984, required that 30 percent of the funds appropriated be set aside for very low-income people. Further, the Housing and Community Development Technical Amendments Act of 1984 provided that in 1985, 40 percent of funding nationwide and 30 percent of each state's funds must be set aside for very low-income people.

Targeting results in 1984

We found that a greater proportion of section 502 assistance benefitted very low-income households in 1984 than in the previous year--increasing from 24 percent of the housing units in 1983 to 30 percent in 1984. Overall, there was an increase of about 1,440 very low-income loans nationwide. However, while congressional appropriations were the same for both years, total assistance provided by FmHA dropped from 65,000 loans in 1983 to 56,000 in 1984.

This decrease in assistance may have resulted from the approach FmHA used in implementing the 40-percent unit targeting requirement until it was lifted during the last quarter of fiscal year 1984. As a result, 80 percent of total funds appropriated were used and 23 percent were expended for very low-income households. (See exhibit J.) Only 14 states provided 30 percent or more of their loans to very low-income households in 1984. Another 25 states provided from 20 to 29 percent, and 11 states provided less than 20 percent of loans to very low-income households. (See exhibit K.)

Overall, 44 states increased the proportion of loans to very low-income households from 1983 to 1984, but 28 states actually made fewer very low-income loans in 1984. Also, while there was a net increase in 1984 of about 1,440 very low-income loans nationwide, this is largely due to one state which had an increase of about 1,560.

Targeting changes

FmHA will have to make changes in fiscal year 1985 if its very low-income targeting requirement is to be met. A key barrier to assisting very low-income households is their ability to repay their loans. According to one FmHA estimate, 85 percent of very low-income applicants do not have the ability to repay loans. Furthermore, our questionnaire showed that a shortage of eligible very low-income applicants is a barrier to achieving targeting objectives. However, there are some measures FmHA might take to help overcome this barrier. For example, FmHA could

--pursue a more aggressive outreach program. Although the national office encouraged county offices to initiate outreach programs, we found that about half of them did not. Those who made efforts to locate very low-income households in need of housing said such efforts were helpful.

--reduce housing costs which would make housing more affordable and result in substantial savings to the government. Reducing housing costs would (1) lower the income needed to qualify for a loan, (2) lower the payments for some very low-income borrowers who would qualify but would have to pay more than 20 percent of income to meet minimum payments required, and (3) reduce maintenance and utility costs which should help qualify some borrowers.

For example, a reduction in house price from $42,000 to $36,000, or about 15 percent, would lower the income needed to purchase a home from $10,100 to $8,700, thus qualifying more very low-income households. (See exhibits L and M.)

--extend the mortgage period from 33 to 38 years for very low-income borrowers. This extension was made possible by the 1983 amendments, but FmHA has not yet revised its regulations to allow implementation. Assuming construction costs had been reduced, this measure would further lower the income needed for a borrower to purchase a $36,000 home from $8,700 to $8,000. (See exhibit N.)

--modify the eligibility rules to allow some very low-income borrowers to pay less than 20 percent of their income for housing. Reduced housing costs and extended mortgage periods can improve repayment ability for very low-income borrowers who would be required to pay more than the minimum 20-percent payment. However, under the current system, very low-income households who cannot afford to pay 20 percent of their incomes for PITI cannot participate in the program although they may have a great need for housing.

FmHA makes little effort to target section 502 funds to households living in substandard housing. The President's Commission on Housing reported in 1982 that about 9.4 percent of rural households occupy inadequate housing. In addition, the 1983 American Housing Survey shows that 12 percent of all low-income rural households purchased substandard housing. Responses to our questionnaire indicated, however, that less than 3 percent of the loans made in 1983 and 1984 went to people who occupied substandard housing as defined by FmHA.

COST REDUCTION

In response to the Rural Housing Amendments of 1983, FmHA proposed a number of measures in January 1984 to reduce housing costs. County supervisors were to use these suggestions to reach desired cost reductions of 15 percent in the average home price which would assist in meeting very low-income targeting goals. These measures included building houses with less living area, eliminating amenities, using less costly alternative housing, and increasing the use of less expensive existing housing.

We found, however, that nationwide, few FmHA county offices implemented these measures. For the most part, the county offices provided financing for the same type of houses in 1984 as in 1983. In addition, in our visits to county offices in 15 states we found little evidence of county supervisors reducing housing costs. Potential cost reduction opportunities that could be explored include:

Reduce living area

While FmHA has an overall ceiling of 1,200 square feet of living area in new homes, it does not have separate limits for 1-, 2-, or 3-bedroom homes. For example, by setting a limit of 960 square feet for a 3-bedroom home and lower limits for 1- and 2-bedroom homes, we estimate that housing costs could be reduced as much as $75 million annually. We developed these limits with assistance of FmHA architects. The limits are based on a FmHA standard plan for a 3-bedroom house containing 960 square feet which has been used in the section 502 program. In addition, the unit-size limits are well above minimum sizes required by HUD and the Department of Defense (DOD) and those recommended by rural housing interest groups. (See exhibit P.)

Reduce nonliving area

Reducing the amount of nonliving area, including garages, carports, and basements could also reduce housing costs. Nationwide statistics for 1984 showed that about 13 percent of FmHA new houses had over 2,000 square feet of total area. We estimate that 56 percent of the new houses had garages or carports and 24 percent had basements. Based on estimates provided by FmHA county offices and homebuilders, eliminating garages, carports, and basements could save as much as $61 million annually. (See exhibit Q.)

Match home size to household size

Of the new houses built in 1984, 64 percent exceeded the current needs of the occupants largely because FmHA has no criteria to match household size to the number of bedrooms in a house. Without occupancy criteria, county supervisors are not likely to disapprove an applicant's request for a house which may exceed his or her needs. As a result, county supervisors routinely approve 3-bedroom houses for single individuals and small households. Using HUD occupancy criteria, we found that if FmHA could better match the number of bedrooms to household size, it could provide many families less costly 2-bedroom houses while reducing new housing costs by as much as $38 million annually. (See exhibit R.)

Reduce features on houses

FmHA county offices currently include air conditioning, decks, patios, half baths, sliding glass doors, bay windows, and paved driveways as features on many new houses. While these features may contribute to appearance, livability, and comfort, their necessity is questionable when considering the substantial subsidies provided. We estimate that costs could be reduced by as much as $25 million if FmHA limited these features. (See exhibit S.)

Increase use of alternative housing

The use of alternative housing styles such as townhouses and duplexes could reduce housing costs by about $3,000 per unit. However, our questionnaire showed that less than 1 percent of FmHA new construction during fiscal year 1984 consisted of either of the two alternative styles. At the 15 county offices we visited, FmHA homebuilders and county officials had no plans to build either town houses or duplexes. However, in some locations we visited, these units were being constructed as part of private sector developments, thus illustrating their potential feasibility.

The Rural Housing Amendments of 1983 also authorized FmHA to finance loans on manufactured/mobile homes in order to reduce costs and serve a greater number of low-income households. At the time of our study, however, FmHA had not finalized regulations allowing county offices to finance these units.

Finance more existing housing from the private market

Although 47 percent of the houses financed by FmHA in 1984 were existing homes, only 15 percent were purchased on the private market. The remaining existing homes were sales from FmHA's inventory of owned properties or assumptions of older FmHA loans. FmHA could reduce housing costs up to $5,000 in some parts of the country by financing more houses from the private market. However, little progress has been made in increasing the use of this market because applicants generally prefer a new house over an existing house. Under FmHA field instructions, county supervisors do not have the authority to disapprove such a choice. County supervisors told us that applicants have little incentive to search the private market for a suitable existing house when they can purchase a new home with the same monthly mortgage payment.

Use modest construction standards

In 1984 FmHA field offices in 17 states used a construction appraisal standard which exceeded the construction quality recommended by the FmHA National Office for new homes. About 21 percent of FmHA new houses were built using this higher standard, and as a result, as much as $31 million in additional costs were likely added to FmHA houses financed in 1984.

According to the National Office, the "fair" standard is the appropriate standard to provide a modest but adequate quality house for low and very low-income borrowers. However, we found that 17 states were using a higher "average" standard in their housing programs. A house of fair quality is simpler in design and lower in cost compared with houses built under the higher average standard. For example, compared to houses rated average, fair quality houses might have a lower roof line, no shutters, minimal roof overhang, and a smaller porch. A FmHA National official said that the use of average instead of the fair standard could add up to $5,000 to the cost of a house.

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The above cost reduction steps could be accomplished without sacrificing construction quality and would still provide section 502 borrowers with modest but adequate housing. However, county supervisors have resisted many of these measures because they believe that the cost-reduction measures would affect future marketability and resale. However, those supervisors we talked to who have financed small houses with limited features have experienced no unusual problems reselling these houses. In addition, some FmHA county offices have waiting lists of up to 1-1/2 years for housing, and at the end of fiscal year 1984, 116,000 applicants were waiting for houses.

COST REDUCTION INCENTIVES

FmHA could provide more incentives to minimize housing costs. But without such incentives, clear guidance and firm limitations on the kind of housing county offices can provide are essential to cost reduction. Under the current system, key parties--the borrower, home builder, and county supervisor--have little incentive to minimize cost. For example:

--Subsidized borrowers generally pay 20 percent of their income for housing, regardless of house price. For example, a borrower with an income of $10,000 would pay $167 a month for a house costing from $15,000 to $40,000. Thus, such a borrower has little incentive to choose a less costly house. Government subsidy costs, however, increase as the cost of the house goes up. In the same example, the monthly government subsidy cost would be only $1 on the $15,000 house but would be $280 on the $40,000 house. (See exhibit O.)

--Builders' profits are generally related to the cost of construction so that they have little incentive to build less costly houses.

--County supervisors generally believe that larger houses are easier to resell if necessary; consequently some are opposed to reducing housing costs.

GRADUATION

Rural housing borrowers are required by law to refinance their loans with private credit when they become financialy able, thereby "graduating" from FmHA credit. Despite initiatives by FmHA, graduation efforts have not been effective. During the 12 month period ending June 30, 1984, FmHA graduated about 3,500 borrowers, or less than 1 percent of the 582,000 borrowers who may have the potential to refinance their loans on the private market. (See exhibit T.)

This low graduation rate has been a concern for some time to FmHA officials. The extent of the graduation problem was documented in a March 1983 report by the Department of Agriculture Office of Inspector General (OIG) and by FmHA internal review teams. The OIG estimated that $1.3 billion in loans could be refinanced according to current FmHA guidelines.

FmHA guidelines require that county offices periodically review each borrower's financial status to determine which borrowers can graduate. However, nearly all county supervisors cited one or more barriers that impede graduation efforts. For example:

--County office staff do not have sufficient time to perform graduation reviews.

--Borrowers have a disincentive to graduate because refinancing their loans with private credit sources will increase their monthly mortgage payments and they will have to pay closing costs.

--Private lenders either are reluctant to refinance FmHA loans or will refinance them only as consumer loans with shorter terms.

--County supervisors have a disincentive to graduate borrowers because those who graduate are typically their best borrowers and if they graduate an increase in their delinquency rate can occur.

--U.S. attorneys generally give low priority to pursuing graduation cases referred to them by FmHA.

Because of these barriers at the county office level, the graduation system could be changed to eliminate or neutralize the disincentives that borrowers and county officials now face concerning graduation.

One possible approach would be to utilize a central location, such as the FmHA Finance Center or a private contractor, to initiate all graduations rather than individual county offices. Specifically, the central location would

--mail letters to all borrowers not receiving an interest credit and request that they provide current information on income, debts, and savings and return this information to the central location.

--send followup notices to borrowers until the needed information is provided.

--determine which borrowers appear to be financially able to graduate and mail them notices requesting that they contact the county supervisor regarding graduation.

--provide county offices with information obtained on all borrowers and a list of those borrowers who were notified that they may be capable of refinancing.

The county supervisors could then follow up on such borrowers and either graduate these borrowers or notify the central location of any extenuating circumstances. Most importantly, to reduce borrower resistance, the supervisor could be empowered to rewrite the loan at market interest rate in a form which could be sold in the secondary mortgage market. Those borrowers who fail to cooperate would be threatened with foreclosure as under present policy.

We discussed this approach with FmHA officials who said this approach might be helpful in addressing some of the barriers in the graduation process. If workable, they said it would provide FmHA and its county supervisors with a useful tool in the graduation process. However, they also said that some legislative changes may be needed in order to implement such an approach.

This approach would provide financial information which would enhance the graduation of those borrowers identified in the OIG report as capable of refinancing. The potential savings are large. For example, we estimate that government subsidy payments could be reduced $50 million annually by graduating those borrowers capable of refinancing their loans as identified by the OIG. The ability to rewrite loans in its portfolio would also enhance FmHA's ability to sell the approximately $650 million in above market rate loans it now holds. (See exhibit U.)

Changes could be made in the type of mortgage instrument offered to new borrowers in the section 502 program. FmHA could provide all new borrowers a mortgage that would require them to pay at least 20 percent of their income as long as FmHA provided financing. This change would enhance program equity and provide an incentive for these borrowers to graduate as soon as they are financially able.

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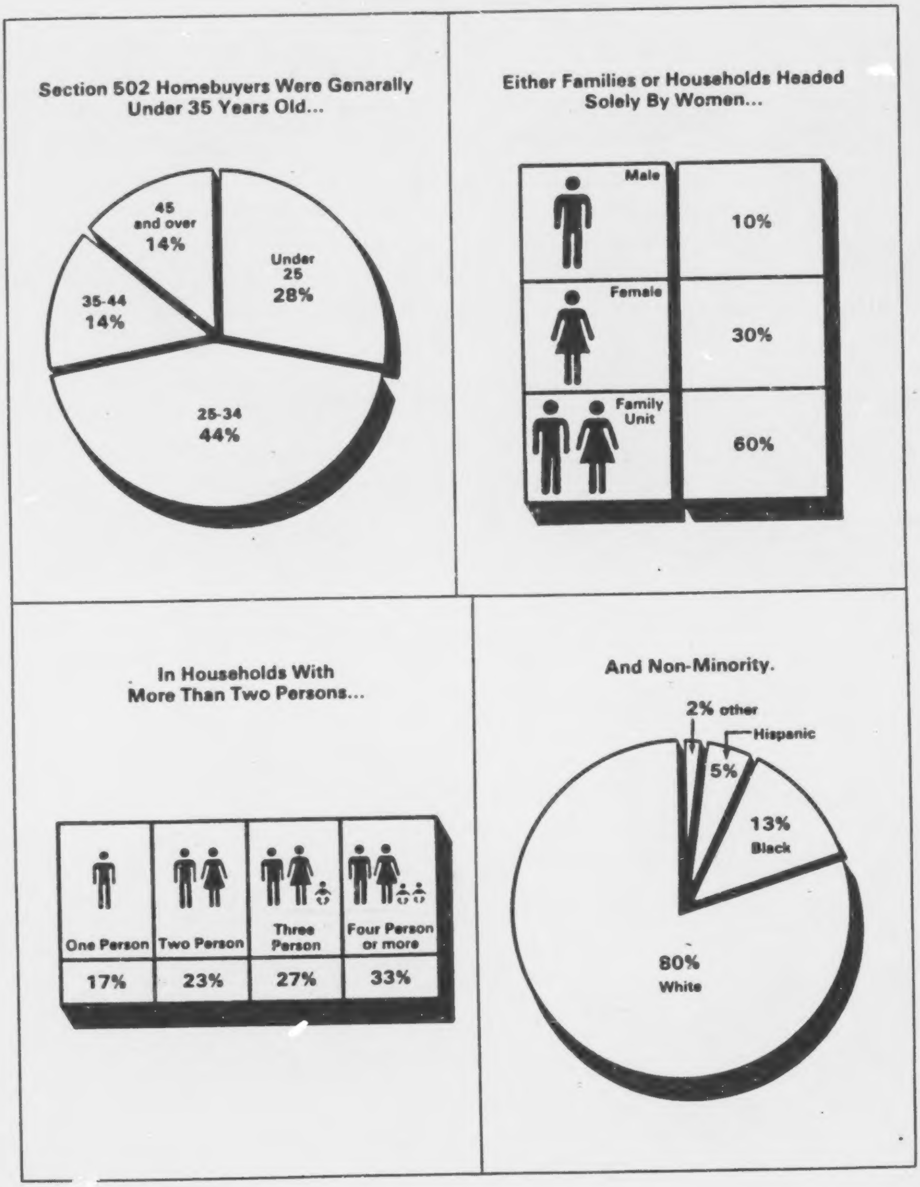
Based on the results of our review to date, FmHA has a variety of alternatives available to reduce costs and target more assistance to needy lower income people in rural areas. Specifically, it could seek more needy households and reduce unit costs to make housing more affordable to very low-income households. Moreover, it could explore eligibility rules to allow needy people, who can not afford housing under the present procedures, to pay less of their incomes for housing. In addition, FmHA could reduce housing costs and save subsidy dollars in several ways. Namely, it could finance smaller, less expensive kinds of housing, match housing to household size and say "no" to applicants who request housing in excess of family needs. Although housing costs could be reduced, there are currently few incentives for either home buyers or builders to do so. Program costs could also be reduced by changing procedures to encourage borrowers who have sufficient income to refinance their loans with private credit. Taken together, our observations indicate that FmHA could target more assistance to the most needy rural households and provide the assistance at less cost.

This completes my prepared statement. My colleagues and I will be happy to respond to any questions.

(Exhibits A through U follow:)

Exhibit A

Demographic Characteristics (1984)



Section 502 Homebuyers Were Genarally Under 35 Years Old...

Either Families or Households Headed Solely By Women...

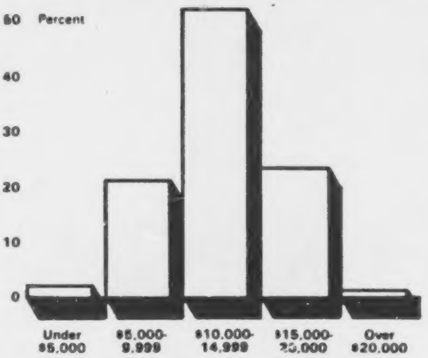
In Households With More Than Two Persons...

And Non-Minority.

EXHIBIT B

Financial Characteristics (1984)

Section 502 Homebuyers Generally Had Incomes Between $10,000 and $20,000...



And Modest Assets.

Net Worth

Under $5,000	83%
$5,000-$9,999	14%
$10,000-$15,000	1%
Over $15,000	2%

Their Incomes Fell Between 50% And 80% Of The Median In The Areas Where They Lived.

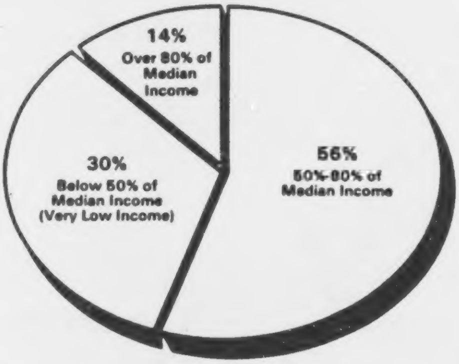
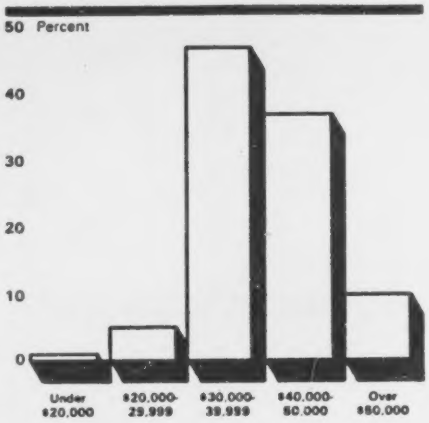
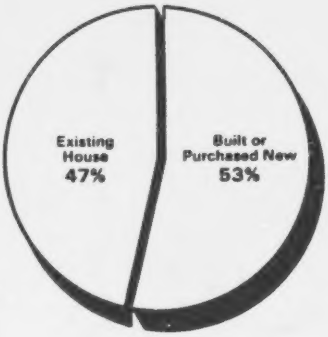


EXHIBIT C

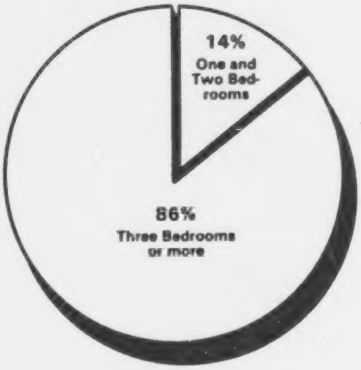
Housing Characteristics (1984)



Section 502 Homebuyers Bought Homes Which Were Priced Between $30,000 And $50,000.



The Homes Were More Often New...



With Three Or More Bedrooms...

And Contained Over 1000 Square Feet Of Living Area.

Under 900	8%
900-1000	16%
1001-1100	37%
1101-1200	28%
over-1200	11%

EXHIBIT D

IN THE 15 FmHA COUNTY OFFICES GAO VISITED, SECTION 502 HOMEBUYERS WERE EMPLOYED IN OCCUPATIONS SUCH AS:

School teacher

Mechanic

Motel worker

Secretary

Hair stylist

Dental assistant

Cashier

Brick mason

Harness maker

Electrician

Longshoreman

Band director

Nurse

Construction laborer

Cook

Pipe fitter

Air conditioner repairman

Electrician

Credit Reporter

Government employee

Lobster fisherman

Waitress

Bartender

Bookkeeper

Seamstress

Realtor

Sales clerk

Travel agent

Seed analyst

Bank teller

Counselor

Dog trainer

Fireman

Machinist

Drafter

Factory worker

Technician

Shoe salesman

Store manager

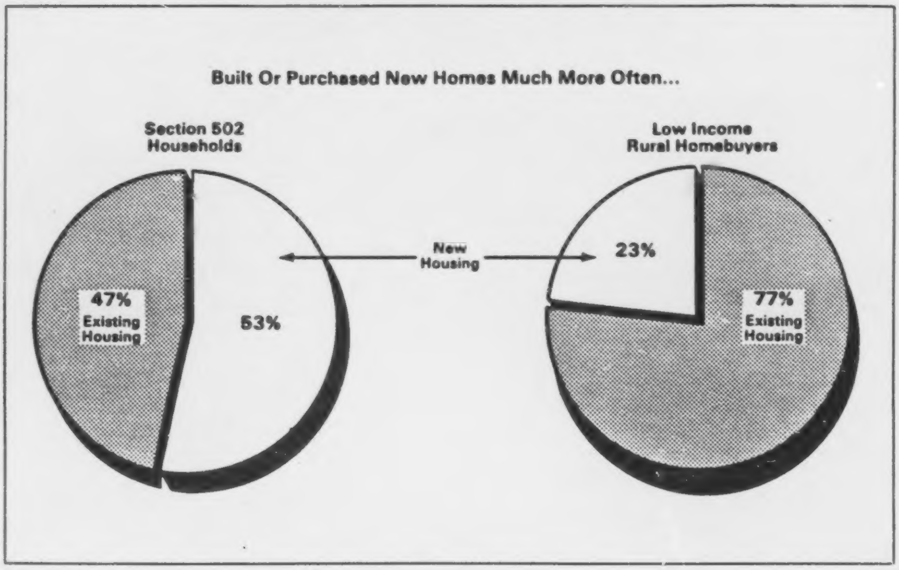
Newspaper reporter

Computer operator

Railroad employee

EXHIBIT E

Compared To Other Low Income Rural Homebuyers, Section 502 Beneficiaries



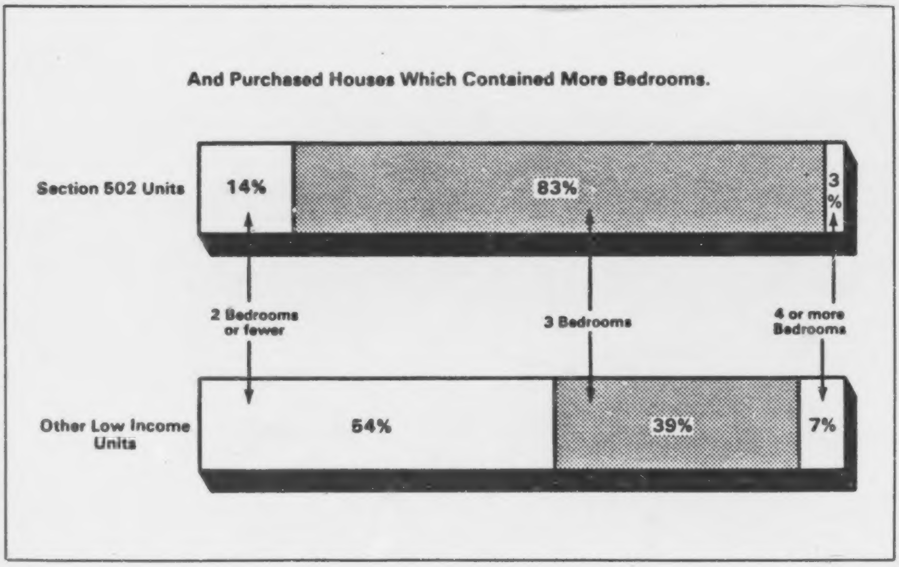


EXHIBIT F

Section 502 Households Are Younger Than Other Low Income Rural Homebuyers

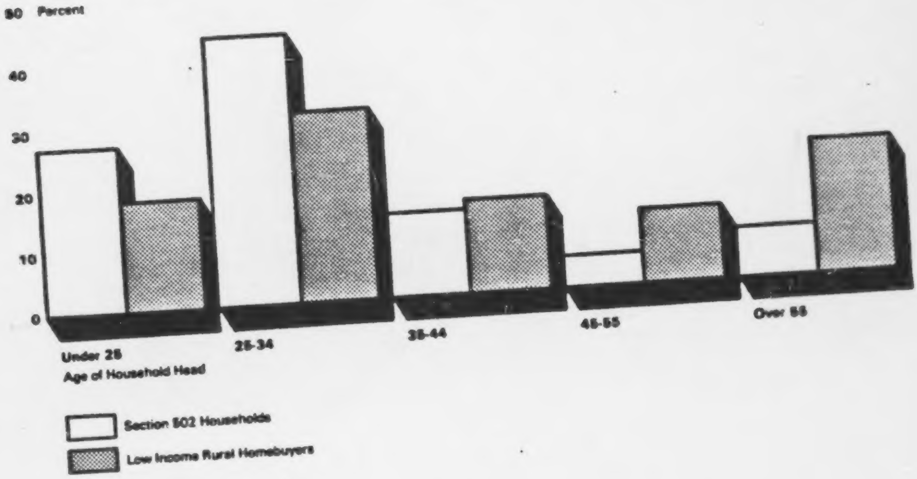


EXHIBIT G

Section 502 Households Are Slightly Larger Than The Households Of Other Low Income Rural Homebuyers

	Persons in Household			
	One Person	Two Person	Three Person	Four Person or more
Section 502 Households	17%	23%	27%	33%
Low Income Rural Homebuyers	17%	28%	21%	34%

EXHIBIT H

Section 502 Households Are More Often Minorities Than Other Low Income Rural Homebuyers

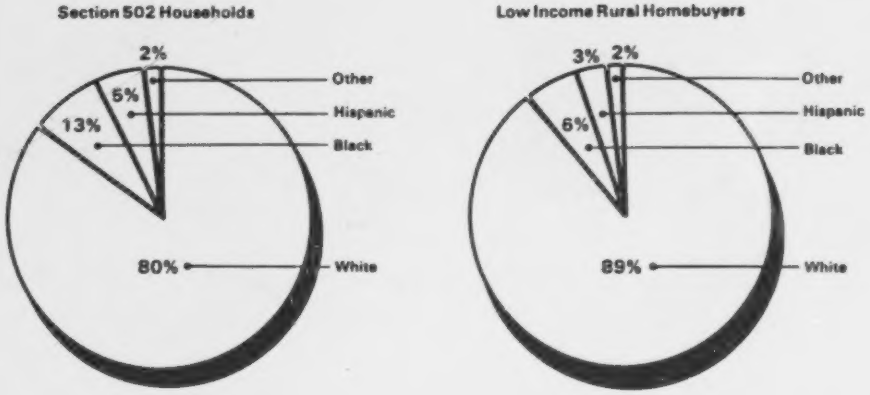


EXHIBIT I

Section 502 Households Have Higher Incomes Than Low Income Rural Homebuyers

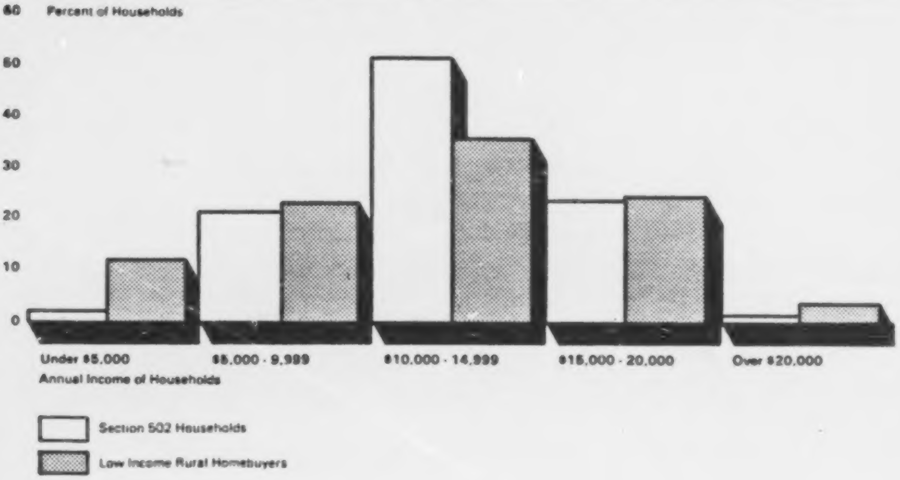


EXHIBIT J

SECTION 502 FISCAL YEAR 1984 TARGETING RESULTS

Borrower income category	Funds appropriated		Appropriation spent	Assistance provided			
				Funds used		Loans made	
	Amount	Percent	Percent	Amount	Percent	Number	Percent
Very low	$ 690,000,000	30	23	$ 519,132,000	28	15,519	28
Low	1,610,000,000	70	57	1,318,917,000	72	39,776	72
Total	$2,300,000,000	100	80	$1,838,049,000	100	55,295	100

EXHIBIT K

STATE-BY-STATE COMPARISON OF 1984 SECTION 502 BENEFICIARIES WITH HUD SECTION 8 INCOME LIMITS

State	Incomes exceeded 80 percent of area median		Low income Incomes did not exceed 80 percent of area median		Very low income[a] Incomes did not exceed 50 percent of area median	
	Number	Percent	Number	Percent	Number	Percent
Alabama	113	9.5	1,072	90.4	475	40.0
Alaska	59	34.5	112	65.4	34	19.8
Arizona	10	35.7	18	64.2	4	14.2
Arkansas	186	13.2	1,214	86.7	400	28.5
California	192	17.3	916	82.6	241	21.7
Colorado	48	12.7	329	87.2	108	28.6
Connecticut	30	9.2	296	90.7	114	34.9
Delaware	10	10.1	89	89.8	19	19.1
Florida	183	21.3	674	78.6	207	24.1
Georgia	157	16.6	787	83.3	257	27.2
Hawaii	23	11.4	178	88.5	59	29.3
Idaho	106	23.2	349	76.7	87	19.1
Illinois	97	11.7	729	88.2	246	29.7
Indiana	69	10.9	561	89.0	176	27.9
Iowa	99	13.1	652	86.8	192	25.5
Kansas	58	16.4	295	83.5	97	27.4
Kentucky	100	14.1	606	85.8	215	30.4
Louisiana	54	6.3	797	93.6	326	38.3
Maine	283	24.3	880	75.6	251	21.5
Maryland	48	10.6	404	89.3	113	25.0
Massachusetts	48	11.6	364	88.3	133	32.2
Michigan	334	15.5	1,820	84.4	606	28.1
Minnesota	84	14.0	514	85.9	159	26.5
Mississippi	296	6.7	4,083	93.2	2,097	47.8
Missouri	168	11.8	1,245	88.1	357	25.2

[a] Percentages do not total across to 100 percent because eligible very low-income households are also included as eligible low-income households.

EXHIBIT K—Continued

State	Incomes exceeded 80 percent of area median		Low income Incomes did not exceed 80 percent of area median		Very low income Incomes did not exceed 50 percent of area median	
	Number	Percent	Number	Percent	Number	Percent
Montana	75	19.6	307	80.3	73	19.1
Nebraska	43	14.0	263	85.9	68	22.2
Nevada	13	33.3	26	66.6	8	20.5
New Hampshire	112	24.3	348	75.6	61	13.2
New Jersey	38	11.4	293	88.5	66	19.9
New Mexico	19	10.2	166	89.7	59	31.8
New York	198	22.9	663	77.0	173	20.0
N. Carolina	475	22.3	1,646	77.6	388	18.2
North Dakota	42	9.9	381	90.0	121	28.6
Ohio	134	10.3	1,160	89.6	398	30.7
Oklahoma	75	7.6	901	92.3	377	38.6
Oregon	111	15.9	586	84.0	164	23.5
Pennsylvania	256	16.8	1,260	83.1	267	17.6
Rhode Island	14	11.6	106	88.3	30	25.0
S. Carolina	128	16.1	667	83.8	226	28.4
South Dakota	52	23.4	170	76.5	27	12.1
Tennessee	114	12.5	791	87.4	324	35.8
Texas	145	8.8	1,495	91.1	598	36.4
Utah	29	10.1	257	89.8	73	25.5
Vermont	127	29.3	305	70.6	50	11.5
Virginia	149	11.2	1,178	88.7	398	29.9
Washington	78	11.7	588	88.2	173	25.9
West Virginia	46	6.4	670	93.5	273	38.1
Wisconsin	134	13.9	830	86.0	321	33.2
Wyoming	18	11.4	139	88.5	58	36.9

Source: FmHA "Use of Funds" data base.

EXHIBIT L

INCOME NEEDED AT SELECTED MORTGAGE AMOUNTS

Mortgage amount	Minimum income needed[a]
$46,000	$11,100
44,000	10,600
42,000	10,100
40,000	9,700
38,000	9,200
36,000	8,700

[a] Borrower pays 20 percent of income for PITI and has an effective interest rate of 1 percent.

EXHIBIT M

EFFECT OF 15 PERCENT REDUCTION IN HOUSE PRICE ON BORROWER PAYMENTS IN SELECTED COUNTIES

County/median income	Adj. family income	Percent of area median income	Current house price	Current monthly payment (PITI)	New house price (15 percent reduction)	New monthly payment (PITI)	Reduction in monthly payment
Loudon, TN $21,300	$10,650	50	$35,000	$178	$29,750	$178	$ 0
	9,600	45	"	160	"	160	0
	8,500	40	"	142	"	142	0
	7,450	35	"	141	"	124	17
Pettis, MO $21,000	10,500	50	39,500	175	33,575	175	0
	9,450	45	"	159	"	158	1
	8,400	40	"	159	"	140	19
	7,350	35	"	159	"	136	23
Lexington, SC $25,200	12,600	50	40,000	210	34,000	210	0
	11,350	45	"	189	"	189	0
	10,100	40	"	168	"	168	0
	8,800	35	"	162	"	147	15
Westmoreland, PA $27,100	13,550	50	45,000	226	38,250	226	0
	12,200	45	"	203	"	203	0
	10,850	40	"	182	"	181	1
	9,500	35	"	182	"	158	24
Pierce, WA $26,100	13,050	50	53,500	218	45,475	218	0
	11,750	45	"	216	"	196	20
	10,450	40	"	216	"	184	32
	9,150	35	"	216	"	184	32

EXHIBIT N

INCOME NEEDED AT SELECTED MORTGAGE AMOUNTS FOR 33-AND 38-YEAR MORTGAGE PERIODS

Mortgage amount	Income needed[a] 33 years	38 years
$50,000	$12,100	$11,100
48,000	11,600	10,600
46,000	11,100	10,200
44,000	10,600	9,800
42,000	10,100	9,300
40,000	9,700	8,900
38,000	9,200	8,400
36,000	8,700	8,000
34,000	8,200	7,500
32,000	7,700	7,100
30,000	7,200	6,700

[a] Borrower pays 20 percent of income and has an effective interest rate of 1 percent.

EXHIBIT O

EFFECT OF CHANGES IN HOUSE PRICE ON BORROWER PAYMENTS, GOVERNMENT SUBSIDY, AND EFFECTIVE INTEREST RATE FOR A BORROWER WITH A $10,000 INCOME

House price	Monthly borrower payment	Monthly government subsidy	Total monthly payment	Borrowers effective interest rate (Percent)
$15,000	$167	$ 1	$168	11-7/8
20,000	167	56	223	8-1/8
25,000	167	112	279	5-3/4
30,000	167	168	335	3-7/8
35,000	167	224	391	2-1/2
40,000	167	280	447	1-1/4
42,000	170	300	470	1

[a] Total monthly payment for PITI with a note rate of 11-7/8 percent. (The FmHA note rate at the time of our review.) Estimates for taxes and insurance were developed using figures provided by FmHA county offices nationwide.

EXHIBIT P

NEW HOUSES HAVING EXCESS LIVING AREA FISCAL YEAR 1984

FmHA new houses		Living area standards of other federal programs (minimum sq. ft.)		GAO living area Standards[c] (sq. feet)	FmHA houses which exceeded GAO standards[d] (Percent)
Number of bedrooms	Percent	DOD[a]	HUD[b]		
1	0.2	550	510	770	89
2	11.1	750	600	850	87
3	86.4	960	730	960	90
4 or more	2.3	1080	910	1,130	87

[a] DOD uses these minimum standards to determine the adequacy of off-base housing for its personnel.

[b] HUD uses these minimum standards for planning and designing multi-family housing units.

[c] We developed these standards in conjunction with FmHA architects and used them to assess the adequacy of living area in new houses.

[d] Approximately 89 percent of new houses financed by FmHA in FY 84 had an average of 140 square feet of excess space. Based on questionnaire results from county offices nationwide, about $2,800 could be saved by reducing these houses by this amount which could reduce costs by about $75 million annually on a new housing program of about 30,000 units.

EXHIBIT Q

ESTIMATED ANNUAL COST REDUCTION POTENTIAL IF MAJOR NONLIVING AREA FEATURES ARE ELIMINATED

Nonliving area feature	Percent of FmHA houses with features	Estimated cost of feature	Estimated cost reduction if features eliminated[a]
Basements	24	$3,500	$25,200,000
Garages	33	2,700	26,730,000
Carports	23	1,300	8,970,000
Total			$60,900,000

[a] Cost estimates were developed by using figures provided by FmHA county offices nationwide and homebuilders in 15 states. Savings were computed on a new housing program of 30,000 units.

EXHIBIT R

COMPARISON OF NUMBER OF BEDROOMS IN NEW FmHA HOUSES WITH HUD USAGE STANDARDS, FISCAL YEAR 1984

Size of FmHA households		Number of bedrooms recommended by HUD[a]	Percent of households having excess bedroom capacity[b]
Number of occupants	Percent of households		
1	18	1	99
2	24	2	85
3	27	2	94
4	18	3	1
5	8	3	4
6 or more	5	4 or more	0

[a] HUD recommends that project owners or agents use these standards when assigning tenants to units in HUD-subsidized multifamily projects.

[b] Based on totals in this column, 64 percent of FmHA new houses had excess bedrooms. Using our questionnaire results from county offices nationwide, $2,000 could be saved by eliminating one bedroom per house. Assuming this figure, about $38 million (64 percent x 30,000 new houses x $2,000) in cost reduction would occur if each house having excess bedroom capacity was reduced in size by one bedroom.

EXHIBIT S

ESTIMATED COST REDUCTION WHICH COULD RESULT FROM ELIMINATING FEATURES ON NEW HOUSES

Feature	Percent of new houses with feature in fiscal year 1983		Potential cost reduction if feature eliminated
	Percent	Cost of each feature[a]	
Features identified by FmHA			
Decks/patios	8.8	$ 550	$ 1,452,000
Sliding glass doors	14.8	340	1,510,000
Picture/bay windows	16.5	300	1,485,000
Air conditioning	20.1	1,340	8,080,000
1/2 bathrooms	b	800	b
Features identified by GAO			
Excess porches	3.9	540	632,000
Paved driveways	49.0	840	12,348,000
Total			$25,507,000

[a] These estimates were received in a nationwide survey of county offices and projected to a housing program of 30,000 new units.

[b] We did not obtain these estimates.

EXHIBIT T

NUMBER OF SECTION 502 BORROWERS BY STATE HAVING LOANS WITHOUT INTEREST CREDIT AS OF AUGUST 2, 1984

State	Number of borrowers
Alabama	24,756
Alaska	616
Arizona	5,787
Arkansas	21,321
California	10,839
Colorado	4,198
Connecticut	1,739
Delaware	1,914
Florida	17,084
Georgia	23,813
Hawaii	3,154
Idaho	8,099
Illinois	10,287
Indiana	13,134
Iowa	12,298
Kansas	9,315
Kentucky	17,076
Louisiana	13,385
Maine	10,412
Maryland	6,409
Massachusetts	3,105
Michigan	13,564
Minnesota	9,228
Mississippi	34,681
Missouri	15,234
Montana	2,481
Nebraska	5,460
Nevada	669
New Hampshire	2,418
New Jersey	8,656
New Mexico	3,505
New York	19,684
North Carolina	41,647
North Dakota	4,392
Ohio	9,377
Oklahoma	17,584
Oregon	3,567
Pennsylvania	11,213
Rhode Island	552
South Carolina	24,605
South Dakota	5,546
Tennessee	28,382
Texas	25,740
Utah	5,788
Vermont	4,154

EXHIBIT T—Continued

State	Number of borrowers
Virginia	24,893
Washington	5,074
West Virginia	10,896
Wisconsin	8,730
Wyoming	1,803
Total	568,264
Other areas	
Puerto Rico	11,219
Virgin Island	1,003
West Pacific Territories	1,301
Total	13,523
National total	581,787

EXHIBIT U

UNPAID PRINCIPAL OF LOANS WITHOUT INTEREST CREDIT BY NOTE INTEREST RATE AS OF AUGUST 2, 1984

Note interest rate	Unpaid principal of loans without interest credits
1.000	$ 1,049,381
1.250	12,547
3.000	4,086,715
3.018	26,306
3.250	322
4.000	68,646,485
4.875	82,988
5.000	232,824,181
5.125	107,179,001
5.250	97,817
5.375	69,679
5.750	2,412,030
5.875	19,002
6.000	2,914,908
6.125	17,745
6.250	242,852,136
6.500	14,784,680
6.750	9,680
7.000	13,214
7.125	24,001

EXHIBIT U—Continued

Note interest rate	Unpaid principal of loans without interest credits
7.200	29,821
7.250	1,500,294,313
7.500	1,217,830
7.725	19,940
7.750	61,797,391
8.000	1,841,373,337
8.100	24,530
8.125	619,382,336
8.250	590,392,059
8.500	1,249,050,554
8.625	18,016
8.700	52,266
8.750	539,820,484
9.000	966,250,791
9.250	2,442,368
9.500	69,688,223
10.000	239,796,851
10.250	36,480
10.500	2,871,925
10.750	181,665,019
11.000	118,511,313
11.250	494,397
11.500	253,825,039
11.875	55,781,532
12.000	110,525,243
12.375	67,485
12.500	20,370,949
12.875	62,464
13.000	206,159,875
13.125	24,572,655
13.200	91,067
13.250	334,695,528
13.500	69,203,596
13.750	112,900
14.000	5,264,959
14.500	1,438,132
14.750	93,109
15.000	54,847
15.500	1,152,637
16.000	8,599,062
16.125	15,509
16.500	22,247
17.000	804,447
18.000	104,098
Total	$9,755,370,541[a]

[a] Loans having a note interest rate of 13 percent or higher total $652,384,668

GENERAL ACCOUNTING OFFICE REPORT AND ONGOING STUDIES

FOOD AND DRUG ADMINISTRATION

TITLE: [Review Groups Not Located in the Offices of Statutory Inspectors General]
RPTNO: AFMD-85-36 DOCUMENT DATE: 02/05/85
ORGANIZATION CONCERNED:
General Services Administration
Department of Health and Human Services
Social Security Administration
Food and Drug Administration
Health Care Financing Administration
General Services Administration: Office of Policy and Management Systems
PRIMARY BUDGET FUNCTION:
504.0/Education, Training, Employment, and Social Services: Training and Employment
LAW AUTHORITY:
Inspector General Act of 1978
Federal Managers' Financial Integrity Act of 1982
BACKGROUND:

In response to a congressional request, GAO studied the management review offices of the General Services Administration (GSA) and the Department of Health and Human Services (HHS) to determine if these offices are interfering with or duplicating the work of agency inspectors general (IG).

FINDINGS:

GAO found that problems had existed concerning investigative authority in the GSA Office of Oversight within the Office of Policy and Management Systems; however, GSA revised the functions of this office to eliminate investigative responsibilities. GAO found that approximately 40 people in the GSA Office of Policy and Management Systems were involved in activities similar to auditing. In reviewing these activities, GAO found a potential for duplication of IG efforts and IG officials identified 16 completed IG audits and 12 ongoing IG audits concerning the same topics as Office of Oversight reviews. Both groups have begun efforts to improve coordination of their activities. Some apparent duplication may have been caused by the use of the Office of Oversight review staff to analyze situations that require a fast response and the use of the IG office to conduct in-depth reviews. HHS has recently completed the transfer of a number of audit and investigative functions to the IG office as a result of an internal study to identify overlap and duplication. The transfer involved 189 positions from the Social Security Administration and 182 positions from the Health Care Financing Administration. The proposed transfer of 118 positions from the Office of Child Support and Enforcement was legislatively deleted. HHS IG officials are also concerned about certain types of Food and Drug Administration (FDA) criminal investigations; however, FDA reported that these investigations are closely linked to its program responsibilities.

TITLE: Status of EPA's Air Quality Standards for Carbon Monoxide
RPTNO: RCED-84-201 DOCUMENT DATE: 09/27/84
ORGANIZATION CONCERNED:
Environmental Protection Agency
Veterans Administration
Food and Drug Administration
PRIMARY BUDGET FUNCTION:
304.0/Natural Resources and Environment: Pollution Control and Abatement
LAW AUTHORITY:
Clean Air Act
Clean Air Act Amendments of 1970
Clean Air Act Amendments of 1977
Food, Drug and Cosmetic Act
BACKGROUND:

In response to a congressional request, GAO provided information on: (1) the Environmental Protection Agency's (EPA) development of the carbon monoxide standard and the research supporting the present standard; and (2)

Food and Drug Administration (FDA) and Veterans Administration (VA) reviews and investigations of research conducted by a VA physician and how these agencies communicated the results of their investigations to EPA.

FINDINGS:

In 1971, carbon monoxide standards were established on the basis of a study which suggested that low-level carbon monoxide exposure would affect the central nervous system. Subsequently, questions were raised about the study's reliability. While EPA recognized the limitations of the study, it took no action to change the standards because new studies, including one by a VA physician, showed that the standards were needed to protect persons with certain heart conditions. In 1983, EPA postponed the issuance of revised standards based on these studies because questions arose concerning the validity of the VA study. In 1979, FDA began an investigation of the questioned study and found that the physician had used incorrect patient selection, conflicting data, and possible falsification of records. As a result of this investigation, the physician's research activities were discontinued. However, GAO could find no indication that VA had notified EPA of the physician's research problems, and FDA did not notify EPA of its investigation until 1982, after EPA had begun using the results of the VA study as a basis for the revised standards. Although EPA believes that the questioned study and three others provide a sufficient scientific basis to support a regulatory decision, it is sponsoring research to duplicate the studies. EPA officials stated that, had they received earlier notification of the physician's research problems, they would have been able to review his research and would have begun earlier to reexamine the data base supporting the standards.

TITLE: Legislative Changes and Administrative Improvements Should Be Considered for FDA To Better Protect the Public From Adulterated Food Products

RPTNO: HRD-84-61 DOCUMENT DATE: 09/26/84

ORGANIZATION CONCERNED:

Department of Health and Human Services
Food and Drug Administration

PRIMARY BUDGET FUNCTION:

554.0/Health: Consumer and Occupational Health and Safety

LAW AUTHORITY:

Food, Drug and Cosmetic Act
21 U.S.C. 301
Medical Device Amendments of 1976
Freedom of Information Act
7 U.S.C. 136(1)
15 U.S.C. 2068(a)(5)

BACKGROUND:

Pursuant to a congressional request, GAO evaluated the Food and Drug Administration's (FDA) efforts to remove adulterated food products from the market and attempted to determine whether FDA needs additional authority to carry out its mission. GAO reviewed food recalls, food seizures, and prosecution actions carried out by FDA from 1980 to 1982.

FINDINGS:

GAO found that, while FDA is authorized to seize adulterated foods, it is not authorized to detain such products while seizure actions are being processed by FDA and the Justice Department. FDA frequently requests states to detain adulterated foods or requests firms to voluntarily hold food products. However, GAO found several instances where products were unavailable for seizure by the time seizure actions were processed. GAO believes that: (1) if FDA had detention authority over adulterated foods, similar to its authority over medical devices, it could prevent greater amounts of adulterated foods from reaching the market; and (2) FDA could more easily remove adulterated foods from the market if it had the authority to review food manufacturers' production and distribution records. GAO also found that: (1) FDA could hasten the seizure process by eliminating several levels of review within FDA; (2) FDA has not adequately monitored recalled foods to ensure that recalled products are reconditioned; and (3) fines assessed for violations of federal laws pertaining to adulterated foods are relatively small.

TITLE: FDA's Oversight of the 1982 Canned Salmon Recalls
RPTNO: HRD-84-77 DOCUMENT DATE: 09/12/84
ORGANIZATION CONCERNED:
Department of Health and Human Services
Food and Drug Administration
PRIMARY BUDGET FUNCTION:
554.0/Health: Consumer and Occupational Health and Safety
LAW AUTHORITY:
Food, Drug and Cosmetic Act

BACKGROUND:

Pursuant to a congressional request, GAO reviewed the conduct of a recall of canned Alaskan salmon that occurred in 1982, focusing on: (1) the role of the Food and Drug Administration (FDA) in the recall; (2) the basis for the recall; (3) the adequacy of processes followed in the recall; (4) the adequacy of assurance received by FDA that recalled salmon was removed from the market and reconditioned or destroyed; (5) corrective measures taken by Alaskan canneries to prevent problems similar to the one that triggered the recall; and (6) the impact of the recall on the salmon industry.

FINDINGS:

GAO found that the FDA investigation that ended in the recall was triggered when a Belgian man died after eating canned Alaskan salmon that was contaminated by botulinum toxin. The salmon became contaminated because defective canning equipment made a hole in the can in which it was packaged. FDA found that the equipment used by 31 Alaskan canneries could produce similar defects and agreed with the cannery industry to check a sample of each cannery's production. The agreement further provided that any cannery that was found to have produced defective cans would recall its entire 1980 and 1981 production of salmon. Nine canneries eventually agreed to recall their 1980 and 1981 production of salmon. GAO also found that: (1) two canneries that did not participate in the recall should possibly have done so; and (2) in two instances, recalled salmon was returned to the market without being reprocessed or repacked. In addition, GAO found that: (1) the salmon recalls resulted in a decline of salmon prices and the loss to the salmon industry of about 6 months worth of sales; (2) canneries that participated in the recall incurred costs of about $10 to $15 per case of recalled salmon; (3) FDA spent $9 million and used about 220 staff years in the recall effort; and (4) virtually the entire salmon industry has taken action to upgrade quality controls.

TITLE: [Evaluation of Selected Aspects of FDA's Food Manufacturing Sanitation Inspection Efforts]
RPTNO: HRD-84-65 DOCUMENT DATE: 08/30/84
ORGANIZATION CONCERNED:
Food and Drug Administration
Department of Health and Human Services
PRIMARY BUDGET FUNCTION:
554.0/Health: Consumer and Occupational Health and Safety
LAW AUTHORITY:
Food, Drug and Cosmetic Act
21 U.S.C. 301
21 C.F.R. 110

BACKGROUND:

In response to a congressional request, GAO developed information on the status of sanitation conditions in the food manufacturing industry and the Food and Drug Administration's (FDA) management of its inspection activities. In addition, GAO reviewed the ability of FDA to enforce regulations which ensure that foods are manufactured under sanitary conditions.

FINDINGS:

GAO found that 93 percent of the food manufacturers sampled nationwide have sanitary conditions that would likely prevent products from becoming contaminated. In response to a GAO request, FDA inspected 97 randomly selected food manufacturing plants and 69 percent of the plants had insanitary conditions in both large and small establishments covering a variety of products. FDA took action to deal with 11 of these establishments. GAO found that the FDA food establishment inventory is inaccurate and contains establishments that are out of business or misclassified. Furthermore, over half of the manufacturers included in the sample which GAO reviewed have interstate sales of 10 percent or less and, therefore, are more appropriately subject to routine inspections by state or local governments. Although FDA has been adjusting its food establishment inventory, GAO has found that opportunities exist for FDA to further reduce the inventory. Finally, GAO found that regulations, aimed at ensuring that establishments operate under sanitary conditions, are valid and substantive and are enforceable when a departure from the regulations represent insanitary conditions sufficient to meet the definition of adulterated food as defined in the Federal Food, Drug and Cosmetic Act. However, the act does not impose any sanctions for departures from the regulations.

TITLE: Problems in Protecting Consumers From Illegally Harvested Shellfish (Clams, Mussels, and Oysters)
RPTNO: HRD-84-36 DOCUMENT DATE: 06/14/84
ORGANIZATION CONCERNED:
Department of Health and Human Services
Food and Drug Administration
PRIMARY BUDGET FUNCTION:
551.2/Health: Prevention and Control of Health Problems
LAW AUTHORITY:
Public Health Service Act
42 U.S.C. 241
Food, Drug and Cosmetic Act
21 U.S.C. 301
Lacey Act Amendments of 1981
16 U.S.C. 3371
Coastal Zone Management Act Amendments of 1976
P.L. 94-370
BACKGROUND:

In response to a congressional request, GAO reviewed the Food and Drug Administration's (FDA) administration of the National Shellfish Sanitation Program, focusing on whether: (1) FDA has adequate legal authority to enforce federal standards designed to ensure the safety and quality of shellfish; (2) FDA is effective in regulating the shellfish industry; or (3) a stronger or different federal role is needed to regulate shellfish.

FINDINGS:

GAO found that, although FDA, state enforcement authorities, and the shellfish industry have been working to improve the sanitary quality of shellfish shipped in interstate commerce, problems still need to be overcome. These problems are as follows: (1) the National Shellfish Sanitation Program is voluntary, and FDA cannot ensure that members are adhering to program requirements; (2) according to state officials, law enforcement agencies do not have sufficient staff or equipment to adequately enforce shellfish program requirements or patrol areas closed to shellfish harvesting; (3) fines assessed by the courts for illegal harvesting have generally been so low that they have had little deterrent effect; (4) some growing areas and surrounding properties have not been adequately inspected; and (5) contaminated shellfish often cannot be traced back to the growing areas from which they were harvested and the persons who harvested them. GAO also determined that there are different alternatives for regulating the shellfish industry, including: (1) leaving regulatory authority with the states and allowing FDA to continue to function in an advisory capacity; (2) granting specific regulatory authority to FDA to administer the shellfish program; and (3) forming a cooperative relationship among the states, FDA, and the shellfish industry in which each party has a voice in the direction and regulation of shellfish and specific duties and responsibilities.

TITLE: Attrition of Scientists and Engineers at Seven Agencies
RPTNO: RCED-84-142 DOCUMENT DATE: 05/29/84
ORGANIZATION CONCERNED:
Department of Labor
Department of Health and Human Services
Environmental Protection Agency

National Aeronautics and Space Administration
Office of Personnel Management
Department of Commerce: National Bureau of Standards
Consumer Product Safety Commission
Office of Science and Technology Policy
Occupational Safety and Health Administration
Food and Drug Administration
National Institutes of Health

PRIMARY BUDGET FUNCTION:
250.0/General Science, Space, and Technology

DESCRIPTIVE NOTE:
Refer to PAD-83-16, December 27, 1982, Accession Number 120248.

BACKGROUND:

Pursuant to a congressional request, GAO provided information on the attrition of scientists and engineers between 1979 and 1983 from seven agencies: the Consumer Product Safety Commission (CPSC), the Environmental Protection Agency (EPA), the Food and Drug Administration (FDA), the National Aeronautics and Space Administration (NASA), the National Bureau of Standards (NBS), the National Institutes of Health (NIH), and the Occupational Safety and Health Administration (OSHA).

FINDINGS:

GAO found an inconsistent pattern when changes in the scientific workforce were compared with changes in the nonscientific workforce. At CPSC, EPA, and OSHA, attrition was higher for scientists and engineers than for the nonscientific workforce; at FDA, NASA, and NBS, the attrition rate for scientists and engineers was lower. Both of the workforces increased at NIH, but the scientific workforce increased at a lesser rate. Agency reduction-in-force (RIF) actions were a factor in the attrition of scientific personnel at CPSC, EPA, NASA, NBS, and OSHA, while FDA and NIH had no separations directly attributable to a RIF. Some voluntary separations might have been due to the announcement of an impending RIF. Trends in scientific employment by occupation and by type of work that scientists and engineers engaged in varied by agency. CPSC was the only agency reviewed that showed a decline in its top five scientific occupations.

TITLE: [VA Central Office Needs To Exercise Better Oversight of Cardiac Pacemaker Recalls]
RPTNO: HRD-84-33 DOCUMENT DATE: 04/16/84

ORGANIZATION CONCERNED:
Veterans Administration
Food and Drug Administration

PRIMARY BUDGET FUNCTION:
703.0/Veterans Benefits and Services: Hospital and Medical Care for Veterans

LAW AUTHORITY:
VA Circular 10-82-72
VA Manual MP-2

BACKGROUND:

GAO reviewed the actions taken by the Veterans Administration (VA) in response to recalls of defective pacemakers.

FINDINGS:

The Food and Drug Administration (FDA) has the authority to ban or recall medical devices, including pacemakers, that present ``unreasonable risks or substantial harm,'' and it informs VA when pacemakers have been recalled. GAO found that, at the VA centers it visited, pacemaker recalls were not effectively managed. GAO learned that the VA computerized pacemaker registry indicated that some recalled pacemakers are still implanted in VA patients. VA guidance regarding pacemakers deals primarily with the removal of recalled pacemakers from stock and has not defined when a recalled pacemaker should be considered critically unreliable. GAO also questioned the accuracy, completeness, and reliability of the computerized pacemaker registry and, therefore, its current usefulness.

UNITED STATES DEPARTMENT OF AGRICULTURE

TITLE: Analysis of Certain Aspects of the Proposed Agricultural Efficiency and Equity Act of 1985
RPTNO: RCED-85-118 DOCUMENT DATE: 04/24/85
ORGANIZATION CONCERNED:
Department of Agriculture
PRIMARY BUDGET FUNCTION:
351.0/Agriculture: Farm Income Stabilization
LAW AUTHORITY:
Agriculture and Food Act of 1981
H.R. 4565 (98th Cong.)
H.R. 1912 (99th Cong.)

BACKGROUND:

Pursuant to a congressional request, GAO reviewed certain aspects of the proposed Agricultural Efficiency and Equity Act of 1985, which would change the way the Department of Agriculture (USDA) determines the acreage bases and yields assigned to producers under various farm programs. Under the Agriculture and Food Act of 1981, USDA has the discretion to establish acreage bases for individual program crops; in 1982, USDA set base acreages to give producers the highest possible base for each crop.

FINDINGS:

GAO found that the 1982 decision has resulted in inflated acreage bases. The proposed act would: (1) limit acreage bases to reflect croplands actually planted; and (2) revise the yield formula to reflect actual production. In addition, GAO estimated that, if the proposed act had been in effect in 1983: (1) total base acreage in the areas reviewed would have been reduced by about 12.5 percent; (2) wheat and feed grain yields would not have been significantly affected, but cotton and rice yields would have decreased significantly; and (3) program payments for the areas reviewed would have been reduced by 16 percent.

TITLE: Overview and Perspectives on the Food Stamp Program
RPTNO: RCED-85-109 DOCUMENT DATE: 04/17/85
ORGANIZATION CONCERNED:
Department of Agriculture: Food and Nutrition Service: Food Stamp Division
PRIMARY BUDGET FUNCTION:
605.0/Income Security: Food and Nutrition Assistance
LAW AUTHORITY:
Food Stamp Act of 1964
Food Stamp Act of 1977
7 U.S.C. 2014(d)
Omnibus Budget Reconciliation Act of 1981
Food Stamp and Commodity Distribution Amendments of 1981
Agriculture and Food Act of 1981
Food Stamp Act Amendments of 1980
Food Stamp Act Amendments of 1982
Omnibus Budget Reconciliation Act of 1982
Deficit Reduction Act of 1984
Social Security Act
Comprehensive Employment and Training Act of 1973
Paperwork Reduction Act of 1980
Executive Order 12291
H.R. 5151 (98th Cong.)
H.R. 5054 (98th Cong.)
H.R. 5473 (98th Cong.)
S. 884 (97th Cong.)
S. 1279 (98th Cong.)
S. 1727 (98th Cong.)
S. 2607 (98th Cong.)
S. 2352 (97th Cong.)
H. Rept. 96-788
H. Rept. 98-782

BACKGROUND:

GAO reviewed five major Food Stamp Program issues including: (1) program accountability and integrity; (2) program simplification; (3) nutritional adequacy of the program; (4) the interrelationship of the program with other food assistance programs; and (5) program coverage and eligibility requirements. This report provided an overview of and perspectives on major Food Stamp Program issues and related areas of concern that Congress may discuss during its 1985 deliberations on the program's reauthorization.

FINDINGS:

GAO found that program errors continue to sap program resources causing about $1 billion in overissued benefits. GAO found that, in spite of legislative and related administrative measures, substantial amounts of over- and underissuances of program benefits continue to occur. Concerns were expressed as to whether: (1) states' should be liable for excessive food stamp overissuances; (2) the criteria for determination of eligibility and benefits could be simplified by standard income deductions; (3) the nutritional aspects of the program adequately met the needs of low-income households; and (4) state regulations restricted participation by the homeless. GAO previously reported that different administrative rules, funding systems, and operating procedures have resulted in program inefficiencies and losses. GAO noted that the rapid growth of food assistance programs has created a need to examine and consider the interrelationships and overall effectiveness in providing food assistance.

TITLE: Quality Control Error Rates for the Food Stamp Program
RPTNO: RCED-85-98 DOCUMENT DATE: 04/12/85
ORGANIZATION CONCERNED:
Department of Agriculture: Food and Nutrition Service
PRIMARY BUDGET FUNCTION:
605.0/Income Security: Food and Nutrition Assistance

BACKGROUND:

Pursuant to a congressional request, GAO provided information for use in the reauthorization of the Food Stamp Program and focused on the extent of the errors that states made when determining households' eligibility and monthly food stamp benefit levels.

FINDINGS:

GAO found that the Food and Nutrition Service (FNS) and states develop error rates for food stamp overissuances, underissuances, and improper denials/terminations. FNS uses these error rates as a basis for assessing financial penalties against states with high overissue rates and for providing incentive funding for states with underissue rates. Because the error rates are estimates, the actual rate may fall anywhere within a specified range, called a confidence interval; however, FNS does not compute confidence intervals. Instead, it bases state sanctions on the official error rate developed during state quality control processes. GAO found that the sanction rates could range from $686,300 to $15,697,300 depending on which point of the confidence interval was used to compute the sanction. By using the midpoint, as FNS does, the estimated sanctions would amount to $6,697,300. GAO found that: (1) the nationwide food stamp overissuance error rate has declined and the underissuances and denials/terminations have remained stable; and (2) these trends occurred for both the official and the state-reported error rates.

TITLE: [President's Fifth Special Message for Fiscal Year 1985]
RPTNO: OGC-85-6 DOCUMENT DATE: 04/12/85
ORGANIZATION CONCERNED:
Department of Agriculture
Department of the Army: Corps of Engineers
Department of Energy
Health Care Financing Administration
Department of Health and Human Services: Office of Human Development Services
Department of Justice
Employment and Training Administration
Environmental Protection Agency
PRIMARY BUDGET FUNCTION:
990.2/Impoundment Control Act of 1974

LAW AUTHORITY:
Congressional Budget and Impoundment Control Act of 1974
Deficit Reduction Act of 1984
P.L. 98-369
Treasury, Postal Service, and General Government Appropriations Act, 1985
P.L. 98-473

BACKGROUND:

The President's fifth special message for fiscal year 1985 was submitted to Congress proposing new rescissions totalling $372 billion. GAO reviewed the message but found no additional information useful to Congress in its consideration of the President's proposals.

FINDINGS:

The rescissions proposed were submitted pursuant to the Deficit Reduction Act of 1984 authorizing the Director of the Office of Management and Budget (OMB) to draft legislation, if necessary, to achieve expected savings. GAO noted that the budget authority provided would otherwise be available for services if 10 percent was placed in reserve and not made available for obligation or expenditure. OMB advised GAO that it considered the actions taken to comply with this provision of congressionally required withholdings and did not intend to submit special messages which report these amounts as impoundments. GAO had no objection to this approach.

TITLE: Homelessness: A Complex Problem and the Federal Response
RPTNO: HRD-85-40 DOCUMENT DATE: 04/09/85

ORGANIZATION CONCERNED:
Department of Health and Human Services
Department of Housing and Urban Development
Federal Emergency Management Agency
Department of Defense
Department of Agriculture
Veterans Administration
ACTION

PRIMARY BUDGET FUNCTION:
604.0/Income Security: Housing Assistance and Other Income Supplements

LAW AUTHORITY:
Emergency Jobs Appropriations Act of 1983
P.L. 98-8
Social Security Disability Benefits Reform Act
P.L. 98-460
Housing and Urban-Rural Recovery Act of 1983
P.L. 98-181
Omnibus Budget Reconciliation Act of 1981
Agriculture, Rural Development, and Related Agencies Appropriation Act , 1985
P.L. 96-265
P.L. 98-94
District of Columbia Overnight Shelter Act
Hodge v. Ginsberg, 303 S.E.2d 245 (W. Va. 1983)

BACKGROUND:

In response to a congressional request, GAO identified trends in poverty for the homeless population, the factors affecting these trends, and the federal programs providing services to the homeless.

FINDINGS:

The size of the homeless population is unknown, due to the inherent difficulties of counting the group. As a result, there is much disagreement as to how large the problem is. However, there is agreement that homelessness is increasing, and service providers have increased their services in response to the increased need for food and shelter. Since 1980, the number of shelters for the homeless has increased by 66 percent nationally. In addition to the traditional number of alcoholics, drug addicts, and transients in the population, more mentally ill, minorities, women, children, and youth in their mid-30's are now among the homeless. Factors which have contributed to the rise in homelessness have included: increased unemployment, the deinstitutionalization of mentally ill persons, increases in personal crises, cuts in public assistance programs, a decline in the low-income housing supply, and alcohol and drug abuse. Cities, counties, and volunteer organizations, with aid from the states and the federal government, have expanded the supply of shelter beds. Federal aid to state and local governments has come from the Federal Emergency Management Agency, the Departments of Defense, Health and Human Services, Agriculture, and Housing and Urban Development, as well as the Veterans Administration and ACTION. The Federal Interagency Task Force on Food and Shelter acts as a broker between the federal government and the private sector to identify available federal facilities or resources. However, long-term solutions are needed if the problems of homelessness are to be resolved.

TITLE: The United States' Response to the Ethiopian Food Crisis
RPTNO: NSIAD-85-65 DOCUMENT DATE: 04/08/85
ORGANIZATION CONCERNED:
Department of Agriculture
Department of State
National Security Council
Agency for International Development
Ethiopia
Catholic Relief Services
United States International Development Cooperation Agency
PRIMARY BUDGET FUNCTION:
151.0/International Affairs: Foreign Economic and Financial Assistance
LAW AUTHORITY:
P.L. 83-480
BACKGROUND:
In response to a congressional request, GAO described U.S. knowledge of Ethiopia's need for massive food aid and the adequacy of the U.S. response to the crisis.
FINDINGS:
The United States knew that acute malnutrition and serious drought conditions existed in the northern provinces of Ethiopia in 1982. However, the severity of the food needs in the rest of Ethiopia was unclear until the spring of 1984. Despite strained relations between the U.S. and Ethiopian Governments, and delays incurred in the initial U.S. response, the United States has provided, overall, more drought and famine relief assistance to Ethiopia than any other government or international organization. During fiscal years 1983 and 1984, the Agency for International Development (AID) approved 11 requests for emergency food assistance for Ethiopia from four private voluntary and international organizations. GAO found that a time lapse occurred in filling a 1982 Catholic Relief Service (CRS) request for food aid because of concerns about the ability of the Ethiopian Government and private voluntary organizations to carry out a food program that would reach all hungry Ethiopians; however, the reported broad needs for food and the relatively small amount requested by CRS raised legitimate questions as to the reasonableness of the delays in approving the CRS requests. The basic problems which impact on the program include: (1) extremely poor relations between the United States and Ethiopia; (2) a lack of AID presence in the country; (3) government restrictions on the movement of foreigners in Ethiopia; and (4) the existence of hostilities between the Ethiopian Government and rebels.

TITLE: Information on the Department of Agriculture's Commodity Exchange Contracts for the 1983 Payment-In-Kind Program
RPTNO: RCED-85-62 DOCUMENT DATE: 03/11/85
ORGANIZATION CONCERNED:
Department of Agriculture: Commodity Credit Corp.
PRIMARY BUDGET FUNCTION:
351.0/Agriculture: Farm Income Stabilization
DESCRIPTIVE NOTE:
Refer to RCED-84-137, September 25, 1984, Accession Number 125653.
BACKGROUND:
In response to a congressional request, GAO reviewed the Department of Agriculture's (USDA) actions in providing commodities to producers participating in the 1983 Payment-in-Kind (PIK) Program by exchanges of

commodities between the Commodity Credit Corporation (CCC) and the grain industry.

FINDINGS:

GAO found that the 1983 PIK Program limited the production of five commodities by reducing the number of acres planted in these crops. As a condition of participation, producers agreed to take prescribed portions of acreage out of production and to receive, as compensation, a portion of the commodity they otherwise would have planted and harvested. Payments could be made either from the CCC inventory or producer-owned commodities used as collateral for previous CCC loans. In order to meet its payment obligations to producers, USDA needed to relocate some commodities to make them locally available to the producers. Therefore, USDA exchanged CCC-owned commodities held at warehouses in surplus counties with privately owned commodities held at warehouses in deficit counties. This exchange was conducted through a series of 10 public bid invitations which resulted in 1,259 contract awards to 237 contractors to exchange CCC-owned grain with corresponding contractor-owned commodities. The contracts called for USDA to provide about 433.7 million bushels of grain to contractors and for the contractors to provide about 377.2 million bushels to USDA for use in the 1983 PIK Program. The exchanges cost CCC approximately $191.6 million.

TITLE: Eligibility Verification and Privacy in Federal Benefit Programs: a Delicate Balance

RPTNO: HRD-85-22 DOCUMENT DATE: 03/01/85

ORGANIZATION CONCERNED:

Office of Management and Budget
Department of Health and Human Services
Department of Housing and Urban Development
Department of Agriculture
Department of Labor
Veterans Administration

PRIMARY BUDGET FUNCTION:

609.0/Income Security: Other Income Security

LAW AUTHORITY:

Deficit Reduction Act of 1984
Privacy Act of 1974
Tax Reform Act of 1976
Paperwork Reduction Act of 1980
Federal Managers' Financial Integrity Act of 1982
Counterfeit Access Device and Computer Fraud and Abuse Act of 1984
Automatic Data Processing Equipment Act
Family Educational Rights and Privacy Act of 1974
Freedom of Information Act

BACKGROUND:

GAO identified 13 issues which it believes Congress, the executive branch, and state and local governments should consider in order to improve internal controls, efficiency, and the protection of privacy in federal benefits programs.

FINDINGS:

GAO found that, to make accurate decisions relating to verification techniques, legislators should determine: (1) whether uniform verification procedures are possible; (2) how verification techniques should be selected; (3) whether computer matching is indispensable or uncontrollable; (4) solutions to the problems inherent in front-end verification; (5) whether error-prone profiling in selective verification is efficient and fair; and (6) whether more programs should use quality control. GAO also found that, to make accurate decisions relating to verification information, legislators should determine whether: (1) tax return information, which is the most reliable type of data, is available for use; (2) centralized data are vital; (3) data links should be allowed; and (3) the use of social security numbers for identification is useful. To make accurate decisions related to privacy protection, legislators should also determine: (1) what privacy rights individuals have in dealing with agencies; (2) whether data security is adequate or not; and (3) whether privacy policy is the same for all programs. Finally, in looking at eligibility verification and privacy issues, a careful balance is needed between protecting privacy rights and meeting program requirements for verifying data on which eligibility decisions are made by the people who implement or are affected by these laws.

TITLE: Federal Insurance Program for Grain Warehouse Depositors--Issues and Information
RPTNO: RCED-85-39 DOCUMENT DATE: 03/01/85
ORGANIZATION CONCERNED:
Department of Agriculture
Federal Deposit Insurance Corp.
PRIMARY BUDGET FUNCTION:
351.0/Agriculture: Farm Income Stabilization
LAW AUTHORITY:
Truth in Lending Act
BACKGROUND:

Pursuant to a congressional request, GAO studied issues relating to the possible establishment of a federal deposit insurance program for grain warehouses comparable to that operated for banks by the Federal Deposit Insurance Corporation (FDIC), including the costs and problems attendant to such a program, existing state and private insurance programs for grain deposits, and existing federal regulatory programs for warehouses. The program operated by FDIC, which is mandatory for most banks in the United States, insures individual and business bank accounts for up to $100,000 per depositor. FDIC assesses insured banks at the rate of 1/12th of 1 percent of average total deposits and oversees the assumption or liquidation of the deposits and assets of failed banks. In connection with the deposit insurance program, FDIC undertakes a number of other functions relating to bank supervision and examination.

FINDINGS:

GAO found that, among those who would be most affected by a similar program for the grain industry, there is limited support for such a program. Issues of concern identified by GAO included: (1) the potentially high cost of such a program; (2) the expansion of regulatory requirements that such a program would entail; (3) uncertainty about the extent of coverage; (4) the potential that such a program would encourage unscrupulous practices in the industry; (5) the potential impact of such a program on existing state and private insurance programs; (6) whether or not such a program would be mandatory; (7) coverage limitations; (8) methods that would be used to finance and administer such a program; and (9) whether such a program would be justified. GAO estimated that, depending on program features, a deposit insurance program might cost from $41 million to $71 million annually, which equates to from 0.5 to 0.7 cent per bushel of grain marketed. In addition, GAO found that: (1) the only provisions for financial compensation for depositors are several state indemnity funds, private insurance policies and, in 29 states, state bonding requirements for grain warehouses and merchandisers; (2) state bonding requirements and indemnity funds differ significantly between states; and (3) very little private insurance is available to grain depositors.

TITLE: Department of Agriculture and Producer Costs To Operate the Tobacco Program
RPTNO: RCED-85-30 DOCUMENT DATE: 02/08/85
ORGANIZATION CONCERNED:
Department of Agriculture
Department of Agriculture: Commodity Credit Corp.
Agricultural Stabilization and Conservation Service
PRIMARY BUDGET FUNCTION:
351.0/Agriculture: Farm Income Stabilization
LAW AUTHORITY:
Agricultural Adjustment Act of 1938
7 U.S.C. 1281 et seq.
Agricultural Act of 1949
7 U.S.C. 1421 et seq.
NoNet Cost Tobacco Program Act of 1982
7 U.S.C. 1445 et seq.
Commodity Credit Corporation Charter Act
15 U.S.C. 714 et seq.

Dairy and Tobacco Adjustment Act of 1983
P.L. 98-59
P.L. 98-180

BACKGROUND:

The Department of Agriculture (USDA) regulates and supports the tobacco industry by imposing acreage allotments and marketing quotas and by offering price-support loans. Pursuant to a congressional request, GAO provided information on: (1) whether the tobacco program operates at no net cost to the government; (2) whether assessments against tobacco producers are sufficient to meet possible losses in stored tobacco purchased with USDA loans; (3) the extent to which active tobacco farmers have purchased allotments and/or quotas and whether leasing has diminished; (4) alleged voting irregularities in a 1982 referendum in North Carolina that approved a tobacco price-support program; and (5) the actual value of tobacco stored by producer associations and the percentage of that tobacco expected to deteriorate over the next 5 years.

FINDINGS:

GAO found that: (1) because the Commodity Credit Corporation (CCC) does not recover full interest costs on loans to tobacco producer associations, the tobacco price-support program operates at a loss to the government; and (2) CCC was not required by the No Net Cost Tobacco Program Act to change its procedures for charging interest. GAO also found that: (1) the 1982 crop assessment against producer associations was apparently adequate to cover crop year 1982 program costs; (2) if CCC changes its procedures for charging interest, crop assessments will have to increase; (3) quotas totalling between 1 and 2 percent of 1983 tobacco marketing quotas were sold; and (4) leasing of marketing quotas decreased in crop year 1983. In addition, GAO found that: (1) a USDA investigation into a tobacco referendum in five North Carolina counties disclosed that some voters in the referendum were ineligible, but the total number of ineligible voters was not large enough to affect the results of the referendum; (2) as of December 31, 1983, about 734 million pounds of flue-cured tobacco valued at about $1.7 billion and about 189 million pounds of burley tobacco valued at $544 million were being stored by producer associations under the USDA price-support program; and (3) the extent to which stored tobacco may deteriorate could not be determined.

TITLE: Information on Delinquent Borrowers in Farmers Home Administration Major Farmer Loan Programs
RPTNO: RCED-85-71 DOCUMENT DATE: 02/06/85

ORGANIZATION CONCERNED:
Department of Agriculture
Farmers Home Administration

PRIMARY BUDGET FUNCTION:
350.0/Agriculture

BACKGROUND:

Pursuant to a congressional request, GAO discussed whether it has developed any information on delinquent Farmers Home Administration (FmHA) borrowers as part of an ongoing review of FmHA management of farm property.

FINDINGS:

GAO provided an oral briefing on delinquent borrowers in November 1984. This report contains data on the status of the delinquent borrowers for the 5-year loan programs as of June 30, 1984. Information is also provided showing historical FmHA data on delinquent borrowers for the five farmer loan programs covering the period from 1975 through 1984. These data have been collected as part of the ongoing farmers loan program review.

TITLE: Potential Impacts of Tighter Forest Service Log Export Restrictions
RPTNO: RCED-85-17 DOCUMENT DATE: 01/28/85

ORGANIZATION CONCERNED:
Forest Service

PRIMARY BUDGET FUNCTION:
302.0/Natural Resources and Environment: Conservation and Land Management

LAW AUTHORITY:
Foreign Assistance Act of 1968
82 Stat. 966

Housing and Urban Development Act of 1970
    84 Stat. 1817
Department of Interior and Related Agencies Appropriation Act, 1974
    P.L. 93-120
36 C.F.R. 223.10
H.R. 639 (97th Cong.)
H.R. 7255 (96th Cong.)
H. Rept. 96-1147
S. Rept. 98-184

BACKGROUND:

In response to a congressional request, GAO reviewed the potential impacts of tighter Forest Service log export restrictions in the West. While the Forest Service has restricted purchasers of national forest timber from exporting it, federal regulations do not prevent others from buying the timber and substituting it for the timber they export. GAO was asked to determine the volume of this third-party substitution and the potential impacts of banning the practice.

FINDINGS:

According to the Forest Service, the acquisition of national forest timber from authorized purchasers by firms which are ineligible for direct timber purchases approximates 2 percent of all national forest timber harvested in the western United States. If the practice were banned, some companies could acquire national forest timber at lower prices because of decreased demand and competition, and the lower prices would result in less government revenues. In addition, banning this practice could disrupt the traditional log markets and business practices and force some companies to change their operations or go out of business. The Forest Service reported that it could not enforce a ban on this practice without additional authority and staff. The Forest Service also reported that about 100 million board feet of national forest timber is used as replacement for private timber exported annually. However, a GAO review of timber sales contract files for three national forests in Idaho did not disclose that any timber substitution was occurring in those forests.

TITLE: [Government-Owned Surplus Dairy Products Held in Inventory]
RPTNO: RCED-85-43 DOCUMENT DATE: 01/07/85

ORGANIZATION CONCERNED:
    Department of Agriculture
PRIMARY BUDGET FUNCTION:
    351.0/Agriculture: Farm Income Stabilization
DESCRIPTIVE NOTE:
    Refer to RCED-84-72, December 20, 1983, Accession Number 123144.
LAW AUTHORITY:
    Dairy Production Stabilization Act of 1983
        P.L. 98-180

BACKGROUND:

Pursuant to a congressional request, GAO updated information contained in an earlier report concerning the surplus of government-owned dairy products held in inventory.

FINDINGS:

The Department of Agriculture's (USDA) dairy inventory decreased from about 3 billion pounds as of September 23, 1983, to about 2.6 billion pounds as of September 21, 1984. Disposition of dairy products through sales and food programs increased by about 8 percent during fiscal year 1984, while USDA purchases decreased by about 31 percent. GAO found that, although the dairy inventory has decreased, USDA now has a larger quantity of older dairy products on hand. USDA claims that spoilage is minimal, but the condition of the products is uncertain because USDA has not reinspected many of the stored commodities since they were purchased.

TITLE: Program To Transfer Land Between the Bureau of Land Management and the Forest Service Has Stalled
RPTNO: RCED-85-21 DOCUMENT DATE: 12/27/84

ORGANIZATION CONCERNED:
    Department of Agriculture
    Department of the Interior

Forest Service
Bureau of Land Management
PRIMARY BUDGET FUNCTION:
302.0/Natural Resources and Environment: Conservation and Land Management
LAW AUTHORITY:
Multiple-Use Sustained-Yield Act of 1960
16 U.S.C. 528 et seq.
Forest and Rangeland Renewable Resources Planning Act of 1974
P.L. 93-378
16 U.S.C. 1600 et seq.
88 Stat. 480
Forest Management Act
P.L. 94-588
90 Stat. 2949
Land Policy and Management Act
43 U.S.C. 1701 et seq.
Weeks Act (Protection of Watersheds)
16 U.S.C. 513 et seq.
Executive Order 12348

BACKGROUND:

GAO reviewed the Bureau of Land Management's (BLM) and the Forest Service's implemention of the Jurisdictional Land Transfer Program, which was established in 1980 to identify and evaluate opportunities to transfer the two agencies' land management responsibilities and develop proposed legislation to effect such transfers.

FINDINGS:

GAO found that the agencies did not meet the milestone dates which they had established for developing the first legislative proposal. In addition, joint field work on the program was suspended in January 1983 because: (1) the two agency heads could not agree on the size and the scope of potential land transfers to be included in the legislative proposals; and (2) the agencies' field staffs, who were responsible for identifying transfer opportunities and developing potential transfer proposals, frequently did not follow the jointly issued program guidelines. Furthermore, statewide land pattern goals were not established in four of the five states studied because of a lack of resources, a lack of communication with agency heads, and a lack of coordination between field staffs and their failure to establish a specific goal. Between 1982 and 1983, the agencies' efforts to comply with an administration initiative to identify and sell unneeded federal land also hindered program progress. Finally, GAO found that some field staffs did not consider transfers that would result in the closing of offices or personnel reductions and relocations.

TITLE: Inventory of Federal Programs Directly Related To Improving Private Sector Productivity
RPTNO: GGD-85-16 DOCUMENT DATE: 12/14/84
ORGANIZATION CONCERNED:
Department of Agriculture
Department of Commerce
Department of Defense
Department of Energy
PRIMARY BUDGET FUNCTION:
806.0/General Government: Other General Government

BACKGROUND:

Pursuant to a congressional request, GAO updated the inventory of federally funded programs directly related to private sector productivity improvement.

FINDINGS:

GAO estimated that the federal government spent over $2.4 billion in fiscal year 1983 on programs directly related to private sector productivity improvement. GAO found that, although there was no overlap or duplication in the programs that it reviewed, there was little or no program coordination. GAO also found a lack of program reviews and evaluations for determining program impact on private sector productivity.

TITLE: Additional Actions Taken To Control Marihuana Cultivation and Other Crimes on Federal Lands
RPTNO: RCED-85-18 DOCUMENT DATE: 11/28/84
ORGANIZATION CONCERNED:
Department of the Interior
Bureau of Land Management
National Park Service
Department of Agriculture
Forest Service
PRIMARY BUDGET FUNCTION:
303.0/Natural Resources and Environment: Recreational Resources
DESCRIPTIVE NOTE:
Refer to CED-82-48, March 10, 1982, Accession Number 117764.
LAW AUTHORITY:
Controlled Substances Act
21 U.S.C. 873(a)(5)
16 U.S.C. 551
Land Policy and Management Act
16 U.S.C. 1a et seq
Drug Abuse Prevention, Treatment, and Rehabilitation Act
21 U.S.C. 1111
P.L. 87-465

BACKGROUND:

In 1982, GAO reported that illegal and unauthorized activities, including crimes against persons and property and marihuana cultivation, were limiting the ability of the public to use and enjoy natural resources and recreational facilities on federal lands. Pursuant to a congressional request concerning the danger imposed by marihuana growers, GAO updated its previous work focusing on the extent of marihuana cultivation, its effects on the management and use of federal lands, and the actions taken to eradicate marihuana.

FINDINGS:

GAO found that federal lands are attractive to the growth of marihuana because much of the land is located in unpopulated areas where the climate is more conducive to its cultivation. This cultivation threatens public and employee safety, hinders land management activities on some federal lands, and causes resource damage. Detecting and destroying marihuana is becoming more difficult because of the techniques being used to hamper detection. Booby traps are set up by the growers to scare intruders or to warn growers of their presence in the areas where the plots are located. These devices include bear traps, rattraps, fishhooks on lines at eye level, and even more dangerous items such as hand grenades and dynamite. Federal employees and other land users have reported incidences of phone calls, rock throwing, and of having shots fired at them. Marihuana growers have also been suspected of causing fires, cutting timber and shrubs to clear the land, shooting and poaching wildlife, and littering. Since 1981, the Forest Service, the Bureau of Land Management, and the National Park Service have developed marihuana control policies to provide support in cooperating with other federal, state, and local law enforcement areas and have taken further actions to control crimes against persons and property, trespassing, timber thefts, and other illegal and unauthorized activities. The Department of the Interior stated that it has increased efforts to control marihuana cultivation, but that it remains a serious threat to federal employees and the public.

TITLE: U.S. Sweetener/Sugar Issues and Concerns
RPTNO: RCED-85-19 DOCUMENT DATE: 11/15/84
ORGANIZATION CONCERNED:
Department of Agriculture
PRIMARY BUDGET FUNCTION:
352.0/Agriculture: Agricultural Research and Services
LAW AUTHORITY:
Jones-Costigan Act (Sugar Control)
Sugar Act of 1937
Sugar Act of 1948
Food and Agriculture Act of 1977
P.L. 95-113

Agriculture and Food Act of 1981
P.L. 97-98
Caribbean Basin Economic Recovery Act
P.L. 98-67
Agricultural Adjustment Act
7 U.S.C. 624
Trade Act of 1974
P.L. 93-618
International Sugar Agreement, October 7, 1977, Multilateral, T.I.A.S. No. 9664
19 U.S.C. 1202

BACKGROUND:

GAO provided information on issues affecting the sugar industry.

FINDINGS:

GAO found that: (1) domestic consumption of sugar declined from 103 pounds per capita in 1972 to 71 pounds per capita in 1983; (2) consumption of sugar as a percentage of domestic sweetener consumption fell from 79 percent to 53 percent during the same period; and (3) while domestic sugarcane production has remained relatively stable since 1975, domestic sugarbeet production and production capacity have declined. GAO also found that: (1) the U.S. role as a sugar importer has important economic effects on sugar-producing countries; (2) a recent initiative to provide assistance to the Caribbean region will benefit Caribbean sugar producers by giving duty-free status to sugar imported from that region; and (3) the International Sugar Agreement, which was intended to promote stability in world sugar prices, has not been effective, primarily because the countries of the European Economic Community are not parties to the agreement. In addition, GAO found that: (1) representatives of sugar-producing and sugar-consuming industries have different views on the optimum structure for a sugar price-support program; (2) without a price-support program, the United States would become more dependent on imported sugar; (3) retaining a price-support program would involve costs to domestic consumers as a subsidy to sugar producers; (4) the sugar price-support program indirectly benefits other parts of the sweetener industry by encouraging the use of sugar substitutes; and (5) international considerations must be taken into account in determining the eventual direction of U.S sugar policy.

TITLE: Forest Service's Program To Identify Unneeded Land for Potential Sale Is Stalled

RPTNO: RCED-85-16 DOCUMENT DATE: 11/06/84

ORGANIZATION CONCERNED:
Department of Agriculture
Forest Service

PRIMARY BUDGET FUNCTION:
302.0/Natural Resources and Environment: Conservation and Land Management

LAW AUTHORITY:
Department of Interior and Related Agencies Appropriation Act, 1984
P.L. 98-146
Forest and Rangeland Renewable Resources Planning Act of 1974
16 U.S.C. 1600 et seq.
Forest Management Act
Weeks Act (Protection of Watersheds)
16 U.S.C. 519
Bankhead-Jones Act (Farm Tenant)
7 U.S.C. 1010 et seq.
Small Tract Act of 1983
16 U.S.C. 494a
Property and Administrative Services Act
40 U.S.C. 471 et seq.
Environmental Policy Act of 1969 (National)
42 U.S.C. 4321 et seq.
Endangered Species Act of 1973
16 U.S.C. 1531 et seq.
Historic Preservation Act
16 U.S.C. 470
Executive Order 12348

BACKGROUND:

In response to a congressional request, GAO reviewed the Forest Service's program to identify and dispose of unneeded land, including: (1) how the Service plans to implement an executive order which asked federal agencies to identify and dispose of such land; (2) its land management process; and (3) the problems and costs involved in selling the land.

FINDINGS:

GAO found that the Service is not determining which tracts of 6 million acres of forest land identified for study are unneeded because it has limited authority to sell national forest system land. However, Congress will not consider granting additional sale authority until the Service identifies and studies the unneeded lands. In addition, Service officials believe that once the land is studied, substantially less than 6 million acres would be offered for sale; however, the specific numbers will not be known until the land is further studied. Service officials estimate that about 10 percent of the land would be offered for sale after a study of resources and land use. The remaining acres would probably be retained because the land: (1) does not cost much to manage and has significant timber resources and animal forage; (2) contains important natural and cultural resources; and (3) is not readily marketable because of remoteness and the lack of natural resources. As of July 9, 1984, 118 of 124 anticipated forest land and management resources plans were still being developed but, by 1985, the 6 million acres could be reviewed. Users of national forest lands felt that the land identified for further study should remain as part of the Forest Service. Several expressed concern about sale terms and whether they would have the first opportunity to purchase unneeded lands.

TITLE: [Overpayment of Transportation Costs for Public Law 480 Commodities]

RPTNO: NSIAD-85-21 DOCUMENT DATE: 10/24/84

ORGANIZATION CONCERNED:

Department of Agriculture: Foreign Agricultural Service

Arab Republic of Egypt

PRIMARY BUDGET FUNCTION:

151.0/International Affairs: Foreign Economic and Financial Assistance

LAW AUTHORITY:

P.L. 83-480

BACKGROUND:

During a study of transportation costs for Public Law 480 commodities, GAO identified an overpayment to Egypt by the Foreign Agricultural Service (FAS) in connection with a shipment of wheat to that country.

FINDINGS:

GAO found that the overpayment arose in a differential paid to Egypt because its wheat, as required by law, was shipped on an American-flag vessel instead of a less expensive foreign-flag vessel. GAO found that the apparent low bid for the shipment, which was used to compute the differential, was late and should have been rejected as nonresponsive. The differential should have been calculated based on the next low bid, which was also submitted by a foreign-flag vessel. GAO stated that the overpayment totalled about $144,000.

TITLE: Observations on Overtime, Sunday, and Holiday Compensation for the U.S. Customs Service, Immigration and Naturalization Service, and Animal and Plant Health Inspection Service Inspectors

RPTNO: GGD-85-5 DOCUMENT DATE: 10/16/84

ORGANIZATION CONCERNED:

Department of the Treasury

United States Customs Service

Department of Agriculture

Department of Agriculture: Animal and Plant Health Inspection Service

Department of Justice

Department of Justice: Immigration and Naturalization Service

PRIMARY BUDGET FUNCTION:

751.0/Administration of Justice: Federal Law Enforcement Activities

LAW AUTHORITY:

Employees' Pay Act

5 U.S.C. 5541 et seq.

Fair Labor Standards Amendments of 1974
P.L. 93-259
88 Stat. 55
Airport and Airways Development Act Amendments of 1976
Border Act
19 U.S.C. 267
8 U.S.C. 1353a
7 U.S.C. 2260

BACKGROUND:

GAO discussed the proposed legislation designed to change the current compensation policy affecting inspectors of the Department of Treasury's U.S. Customs Service, the Department of Justice's Immigration and Naturalization Service, and the Department of Agriculture's Animal and Plant Health Inspection Service. Inspectors are compensated differently from other federal employees for overtime, Sunday, and holiday work assignments.

FINDINGS:

GAO found that the different compensation costs totalled approximately $85 million in fiscal year (FY) 1983. The proposed legislation would attempt to make the inspectors compensation more comparable to the majority of federal workers. Further: (1) some of the conditions that led to enacting the original inspectors' compensation laws have changed; and (2) the cost of paying inspectors differently from most other federal employees was at least $21.6 million in fiscal year 1982.

TITLE: [Information on Indemnity Payments in USDA's Avian Influenza Eradication Program]
RPTNO: RCED-85-36 DOCUMENT DATE: 10/11/84

ORGANIZATION CONCERNED:
Department of Agriculture

PRIMARY BUDGET FUNCTION:
351.0/Agriculture: Farm Income Stabilization

LAW AUTHORITY:
21 U.S.C. 134a

BACKGROUND:

Pursuant to a congressional request, GAO reviewed the methodology the Department of Agriculture (USDA) used in calculating indemnity rates for destruction of poultry flocks under the avian influenza eradication program.

FINDINGS:

GAO found that USDA originally established per-bird indemnity rates for all types of poultry to compensate producers for production costs incurred at the time their flocks were destroyed. However, USDA increased the per-bird indemnity rates to reflect increases in production costs for all poultry other than egg-producing hens, referred to as layers. Because these layers generate revenue continuously and could not be replaced immediately, USDA decided to change per-bird indemnity rates for layers to fairly compensate producers. GAO concluded that producers of poultry that was raised for slaughter were indemnified at least as well as layer producers even though a different basis was used for setting the per-bird indemnity rates.

TITLE: Examination of the Rural Telephone Bank's Financial Statements for the Year Ended September 30, 1983
RPTNO: AFMD-84-72 DOCUMENT DATE: 09/28/84

ORGANIZATION CONCERNED:
Department of Agriculture: Rural Electrification Administration: Rural Telephone Bank

PRIMARY BUDGET FUNCTION:
998.6/Financial Management and Information Systems: Regulatory Accounting Rules and Financial Reporting

LAW AUTHORITY:
31 U.S.C. 9105

BACKGROUND:

GAO examined the statement of financial condition of the Rural Telephone Bank as of September 30, 1983, and the related statements of income, expenses, and changes in patronage capital and changes in financial condition for the year then ended.

FINDINGS:
GAO found that the financial statements presented fairly the Bank's financial position as of September 30, 1983, and the results of its operations, the changes in its patronage capital, and the changes in its financial position for the year then ended, in conformity with generally accepted accounting principles.

TITLE: Department of Agriculture's Acquisition and Distribution of Commodities for Its 1983 Payment-in-Kind Program
RPTNO: RCED-84-137 DOCUMENT DATE: 09/25/84
ORGANIZATION CONCERNED:
Department of Agriculture
PRIMARY BUDGET FUNCTION:
351.0/Agriculture: Farm Income Stabilization
DESCRIPTIVE NOTE:
Refer to RCED-85-62, March 11, 1985, Accession Number 126412.
BACKGROUND:
Pursuant to a congressional request, GAO reviewed the Department of Agriculture's (USDA) payment-in-kind (PIK) program, which compensates farmers who withhold production of any of five types of commodities with certain amounts of the crops they would otherwise have harvested.
FINDINGS:
GAO found that in 1983, producers idled about 48 million of the 212 million acres USDA had expected to be planted in the five PIK commodities. USDA did not have enough of four of the commodities and purchased additional quantities from producers with outstanding Commodity Credit Corporation (CCC) loans. Such producers forfeited a portion of the crops they had used for loan collateral in return for forgiveness of their loans and the right to retain a percentage of the collateral. USDA used competitive bidding to select bids from the producers who retained the lowest percentage of their collateral. GAO also found that, in most cases, USDA met its PIK obligations by providing acceptable commodities in a timely manner. However, USDA could have spent less money to acquire PIK commodities from CCC debtors by using a unit cost approach to bidding. GAO estimated that USDA could have saved between $58 million and $256 million using a unit cost approach because USDA did not consider the varying rates at which CCC loaned money to producers. In addition, GAO found that USDA positioned about 1 percent of the total commodities exchanged in localities where they were not needed for the program.

TITLE: Establishing New Federal Food-Buying Procedures Would Help Eliminate Unnecessary Special Examinations
RPTNO: RCED-84-150 DOCUMENT DATE: 09/24/84
ORGANIZATION CONCERNED:
Department of Defense
Department of Agriculture
Veterans Administration
PRIMARY BUDGET FUNCTION:
352.0/Agriculture: Agricultural Research and Services
LAW AUTHORITY:
Food, Drug and Cosmetic Act
21 U.S.C. 301 et seq.
Fair Packaging and Labeling Act
15 U.S.C. 1451 et seq.
Meat Inspection Act
21 U.S.C. 601 et seq.
Poultry Products Inspection Act
21 U.S.C. 451 et seq.
Egg Products Inspection Law
21 U.S.C. 1031 et seq.
BACKGROUND:
GAO reviewed federal practices for accepting food purchases to determine if federal costs could be decreased by reducing the number of special examinations necessary to ensure the quality of accepted products.
FINDINGS:
GAO found that the direct cost of certification services was $18 million in fiscal year 1982. Although the Department of Agriculture has instructed

other federal agencies to waive certification when it is not cost effective, some agencies routinely require certification because federal buying agencies do not have procedures for weighing the costs and benefits of certification. Some agencies believe that certification is necessary because suppliers who have previously supplied defective products cannot be excluded from competition for food procurements, but GAO noted that agencies may consider past performance in determining suppliers' responsibility. GAO also found that: (1) many certifications duplicate industry quality control efforts or required federal inspections; and (2) certification can be extremely costly because the costs of increased production time brought on by unnecessary certification are passed on to the government by suppliers. GAO noted that the costs of certification of one purchase of ground beef amounted to 9.3 percent of the total value of the purchase.

TITLE: [Overview of Selected Civilian Agencies' Progress in Achieving Energy Conservation]
RPTNO: RCED-84-200 DOCUMENT DATE: 09/21/84
ORGANIZATION CONCERNED:
General Services Administration
Veterans Administration
National Aeronautics and Space Administration
United States Postal Service
Department of Energy
Department of Transportation
Department of the Interior
Department of Agriculture
Department of Justice
Department of Health and Human Services
PRIMARY BUDGET FUNCTION:
272.0/Energy: Energy Conservation
DESCRIPTIVE NOTE:
Refer to RCED-84-86, March 7, 1984, Accession Number 123836.
BACKGROUND:
Pursuant to a congressional request, GAO reported on the efforts of 10 civilian agencies to meet established energy conservation goals to: (1) reduce overall energy use in existing buildings by 20 percent by 1985; (2) make all cost-effective retrofits to existing buildings by 1990; (3) make new buildings 45 percent more efficient than buildings existing in 1975; and (4) reduce petroleum use by 30 percent by 1985.
FINDINGS:
GAO found that 8 of the agencies have already met the petroleum use goal and 9 have reduced energy use in existing buildings by at least 10 percent. Agencies' retrofit progress is difficult to determine due to their tendency to undertake the most cost-effective projects first and the fact that all retrofits to one building might not be done in a single year. At the time of the review, only two agencies had energy use data for new buildings, neither of which achieved the 45-percent goal. Regarding agency support for conservation programs, GAO found that organizational placement of the program varied among the agencies reviewed, 7 agencies had energy conservation staff reductions since 1981, 4 agencies experienced increases in funding, and 4 had funding decreases. Finally, GAO noted that there is little verification of energy conservation data by either the agencies or the Department of Energy.

TITLE: Better Wage-Matching Systems and Procedures Would Enhance Food Stamp Program Integrity
RPTNO: RCED-84-112 DOCUMENT DATE: 09/11/84
ORGANIZATION CONCERNED:
Department of Agriculture
PRIMARY BUDGET FUNCTION:
604.0/Income Security: Housing Assistance and Other Income Supplements
LAW AUTHORITY:
Food Stamp Act Amendments of 1980
P.L. 96-249
Internal Revenue Code (IRC)
Social Security Act

Food Stamp and Community Distribution Amendments of 1981
    P.L. 97-98
Deficit Reduction Act of 1984
    P.L. 98-369
Social Security Amendments of 1977
    P.L. 95-216
P.L. 98-204
H. Rept. 96-788

BACKGROUND:

GAO reviewed states' wage-matching activities in the Food Stamp Program to determine whether the Department of Agriculture's and states' wage-matching efforts have effectively addressed the benefit overissuance problem. GAO also analyzed the effectiveness of Aid to Families with Dependent Children (AFDC) Program matching operations on a smaller scale.

FINDINGS:

GAO found that underreporting of beneficiary earnings is the most significant cause of food stamp overissuances, which currently are about $1 billion annually. Although congressional requirements to match wages with external sources can be an effective method for improving the program's integrity, GAO found that wage matching could be made more effective and efficient through the use of automated procedures, broader program coverage, and effective tolerances in pursuing wage differences. Active federal involvement in guiding and assisting states to improve their matching systems would benefit not only the Food Stamp Program, but also the AFDC Program. Thorough follow-up actions should ensure that appropriate measures are taken to identify and recover overissuances. GAO noted, however, that follow-up action in most of the cases it reviewed was either not taken, was incomplete, or was inappropriate and the potential benefits from wage matching were not fully achieved.

TITLE: [Evaluation of the Quality of Corn Stored by USDA at a Plainview, TX, Grain Warehouse]
RPTNO: RCED-84-175   DOCUMENT DATE: 08/17/84

ORGANIZATION CONCERNED:
    Department of Agriculture: Commodity Credit Corp.
    PLB Grain Storage Corp.

PRIMARY BUDGET FUNCTION:
    351.0/Agriculture: Farm Income Stabilization

LAW AUTHORITY:
    31 U.S.C. 716(b)

BACKGROUND:

Pursuant to a congressional request, GAO investigated reports that significant quantities of corn owned by the Commodity Credit Corporation (CCC) and stored in commercial warehouses in Texas had seriously deteriorated.

FINDINGS:

The GAO review focused on one particular warehouse in Texas where about 22 million bushels of CCC-owned corn have been stored since 1980. Analyses performed in November 1983 and in February 1984 revealed that the quality of the CCC-owned corn stored at the warehouse had not deteriorated beyond what would normally be expected over a period of almost 4 years. GAO found no basis for questioning the usefulness of the stored corn for making payments under the payment-in-kind (PIK) program or for feeding livestock. Officials stated that they were not aware of any complaints about the quality of the corn which the warehouse had supplied for the PIK program.

TITLE: Federal Economic Development Assistance Programs: An Econometric Analysis of Their Employment Effects, 1974-78
RPTNO: OCE-84-5   DOCUMENT DATE: 08/15/84

ORGANIZATION CONCERNED:
    Department of Commerce
    Department of Agriculture
    Department of Housing and Urban Development
    Small Business Administration

PRIMARY BUDGET FUNCTION:
    452.0/Community and Regional Development: Area and Regional Development

DESCRIPTIVE NOTE:
Refer to OCE-84-4, August 15, 1984, Accession Number 124943; and Testimony by Harry S. Havens, Assistant Comptroller General, February 15, 1983, Accession Number 120594.

BACKGROUND:
In response to a congressional request, GAO developed an econometric model to provide consistent estimates of the employment effects of GAO-surveyed economic development programs.

FINDINGS:
Based on estimates from this model, GAO concluded that the programs did create jobs during the 1974-78 period. The number of jobs created varied by industrial classification and by each state's overall level of employment growth. Several economic development programs funded projects that directly employed construction workers. However, the construction industry experienced low growth during the 1974-78 period, and construction projects financed by these programs tended to be capital- rather than labor-intensive. GAO found that most jobs were created in the manufacturing sector of the economy, regardless of whether aid was provided in the form of grants, direct loans, or loan guarantees. Among the various grant categories, public works grants were the most effective in creating jobs. GAO also found that grants were most effective in creating jobs in states with low employment growth.

TITLE: Estimated Employment Effects of Federal Economic Development Programs
RPTNO: OCE-84-4 DOCUMENT DATE: 08/15/84

ORGANIZATION CONCERNED:
Department of Commerce
Department of Agriculture
Department of Housing and Urban Development
Small Business Administration

PRIMARY BUDGET FUNCTION:
452.0/Community and Regional Development: Area and Regional Development

DESCRIPTIVE NOTE:
Refer to OCE-84-5, August 15, 1984, Accession Number 124910; and Testimony by Harry S. Havens, Assistant Comptroller General, February 15, 1983, Accession Number 120594.

BACKGROUND:
In response to a congressional request, GAO developed an econometric model to provide consistent estimates of the employment effects of GAO-surveyed economic development programs.

FINDINGS:
Based on estimates from this model, GAO concluded that the programs did create jobs during the 1974-78 period. The number of jobs created varied by industrial classification and by each state's overall level of employment growth. Several economic development programs funded projects that directly employed construction workers. However, the construction industry experienced low growth during the 1974-78 period, and construction projects financed by these programs tended to be capital- rather than labor-intensive. GAO found that most jobs were created in the manufacturing sector of the economy, regardless of whether aid was provided in the form of grants, direct loans, or loan guarantees. Among the various grant categories, public works grants were the most effective in creating jobs. GAO also found that grants were most effective in creating jobs in states with low employment growth.

TITLE: [Wilderness Mineral Assessment Reports Could Be Improved To Better Meet Land Use Decisionmaking Needs]
DOCUMENT DATE: 08/14/84

ORGANIZATION CONCERNED:
Forest Service
Department of the Interior: Geological Survey
Department of the Interior: Bureau of Mines

PRIMARY BUDGET FUNCTION:
306.0/Natural Resources and Environment: Other Natural Resources

LAW AUTHORITY:
Wilderness Act
Forest Management Act

BACKGROUND:

As part of the work which GAO has conducted over the past 2 years in examining a number of federal mineral land assessment programs, GAO explored aspects of the wilderness mineral assessment program conducted jointly by the U.S. Geological Survey and the Bureau of Mines for the Forest Service (FS).

FINDINGS:

GAO found that these assessment reports are not as useful to FS planners as they could be. While the primary purpose of the wilderness mineral surveys is to aid land use decisionmakers, the reports are often: (1) difficult to understand and to use; and (2) little more than raw data requiring lengthy interpretation. In addition, information necessary to place mineral data in perspective is missing. The surveys are fairly detailed and, depending on the size and complexity of the area studied, a single assessment may consume up to 3 years of research team time. Although FS is a principal user of the mineral assessments, it has had little input as to the format or the content of the assessment reports. These reports are highly technical and are intended to add to what is known about the nation's geology. Although the reports are supposed to be aimed at land use decisionmakers, the Survey distributes the reports to state and local governments, oil and gas industries, and academia. FS officials suggest that the reports could be far more useful for land use decisions if the data were directed toward land use managers. FS managers need to know where the minerals are located, whether they are in demand, whether they might be economically mined, and how they would be transported. In addition, regularly scheduled briefings on these topics could be valuable. The Bureau routinely collects this information. GAO found that, despite Bureau intentions, few changes have been made in the assessment reports.

TITLE: Audits of Federal Programs: Reasons for Disparities Between Costs Questioned by Auditors and Amounts Agencies Disallow
RPTNO: AFMD-84-57 DOCUMENT DATE: 08/08/84

ORGANIZATION CONCERNED:
Environmental Protection Agency
Department of Education
Department of Health and Human Services
Department of Transportation
Department of Agriculture
Department of Labor
Heads of Federal Agencies
Office of Management and Budget
Statutory Inspectors General

PRIMARY BUDGET FUNCTION:
998.3/Financial Management and Information Systems: Internal Audit

LAW AUTHORITY:
Supplemental Appropriations and Rescission Act, 1980
P.L. 96-304
Federal Managers' Financial Integrity Act of 1982
P.L. 97-255
31 U.S.C. 3512(b)(2)
Inspector General Act of 1978
P.L. 95-452
OMB Circular A-50
H. Rept. 97-727

BACKGROUND:

Pursuant to a congressional request, GAO determined the reasons for disparities between the amount of contract and grant costs questioned by auditors and the amount eventually disallowed by program managers.

FINDINGS:

GAO generally found that proper procedures are used in reaching decisions to allow costs. However, GAO questioned procedures used in instances representing $163 million in allowed costs at six agencies. Program managers are partially responsible because they do not: (1) hold auditees accountable for correcting program deficiencies identified by audits; (2)

adequately address issues raised by auditors; or (3) adequately justify decisions in writing. Questionable procedures identified by GAO include: (1) allowing questioned costs because of a proposed future audit; (2) allowing questioned costs because the auditee submitted a plan to correct identified deficiencies; (3) using special provisions to allow questioned costs; (4) allowing questioned costs on the basis of administrative actions; (5) allowing questioned costs on the grounds the auditee provided certification that costs were appropriately incurred; and (6) allowing questioned costs without providing, as required by Office of Management and Budget (OMB) guidelines, written justification as to why program officials disagreed with auditors. GAO also found: (1) some problems with audit quality, but it was unable to determine the extent of auditing errors; (2) that auditors do not always follow up on audit recommendations; and (3) that auditors do not always provide accurate and complete information to Congress regarding audit resolution.

TITLE: Department of Agriculture Is Using Improved Payment Procedures for Its 1984 Farm Programs
RPTNO: RCED-84-159 DOCUMENT DATE: 08/06/84
ORGANIZATION CONCERNED:
Department of Agriculture
Agricultural Stabilization and Conservation Service
PRIMARY BUDGET FUNCTION:
351.0/Agriculture: Farm Income Stabilization
BACKGROUND:

In response to a congressional request, GAO examined whether: (1) Department of Agriculture (USDA) procedures for 1983 farm programs allow a farmer to receive payments based on the average yields of land rather than on the yield of the land actually set aside; (2) individual farmers received payments beyond the production capability of the land actually set aside; and (3) there are any cost-effective administrative remedies available to USDA which would preclude farm payments that do not reflect the actual yield capability of the land set aside.

FINDINGS:

GAO found that USDA procedures allow farmers to receive program payments for corn, wheat, and sorghum based on average yields of land. However, some lower yielding dry land which is set aside receives payment on the basis of higher yielding irrigated land. With respect to rice and cotton crops, payments are based on historical yields. Overall, farmers receive payments for corn, wheat, and sorghum based on average and irrigated crop yields that would have been lower if the payments were based on the expected yield of the land actually set aside. USDA could have lowered its payment amounts; however, GAO did find instances where payments to individual farmers would have been larger if based on land actually set aside. This occurred when farmers chose to set aside higher yielding irrigable land but were paid on the basis of lower yielding dry land. GAO found that there are administrative remedies available to USDA and that USDA has already take remedial action to prevent future payments on the basis of average or irrigated yields. The revised procedures will make use of existing data and procedures already available at the county level so that no significant amount of additional work or costs is involved. In view of this, GAO believes that the USDA action will be cost effective.

TITLE: [Information on Forest Service Below-Cost Timber Sales for National Forests in Colorado]
RPTNO: RCED-84-184 DOCUMENT DATE: 08/03/84
ORGANIZATION CONCERNED:
Forest Service
Department of Agriculture
PRIMARY BUDGET FUNCTION:
302.0/Natural Resources and Environment: Conservation and Land Management
BACKGROUND:

Pursuant to a congressional request, GAO discussed the Forest Service's timber sales made by the national forests in Colorado for fiscal years (FY's) 1981 and 1982.

FINDINGS:

GAO found that total Forest Service revenues from advertised timber sales in four regions exceeded Service sale costs by $712 million. Although the timber was sold at or above the Service's appraised values, 27 percent of the sales in FY 1981 and 42 percent in FY 1982 failed to generate sufficient revenues to cover the costs of making the sales. In terms of volume sold, the Rocky Mountain Region, which includes Colorado plus three other states, accounted for about 4 percent of the total timber sold by all Forest Service regions during this period. For the national forests in Colorado, the percentages for below-cost sales were 98 percent in 1981 and 100 percent in 1982. GAO believes that management of federal timber resources could be improved by developing and using financial data in the timber sale planning and decisionmaking process.

TITLE: Private Mineral Rights Complicate the Management of Eastern Wilderness Areas

RPTNO: RCED-84-101 DOCUMENT DATE: 07/26/84

ORGANIZATION CONCERNED:
Department of the Interior
Forest Service
Department of Agriculture

PRIMARY BUDGET FUNCTION:
302.0/Natural Resources and Environment: Conservation and Land Management

LAW AUTHORITY:
Environmental Policy Act of 1969 (National)
P.L. 91-180
Wilderness Act
P.L. 88-577
Land Policy and Management Act
Weeks Act (Protection of Watersheds)
P.L. 97-466
P.L. 93-622

BACKGROUND:

Pursuant to a congressional request, GAO studied the problems associated with private mineral rights for wilderness areas in the eastern United States. While the government has some regulatory control over mineral resource development in wilderness areas, it cannot deny the development of private mineral rights. However, such development conflicts with the legislation that created the National Wilderness Preservation System. That legislation restricted activities in wilderness areas to recreational, scenic, scientific, educational, historical, and conservation uses by the public.

FINDINGS:

GAO found that the Forest Service, which manages wilderness areas, has experienced problems resulting from the possible development of private mineral rights in four wilderness areas and one potential wilderness area in the eastern United States. In one wilderness area, the owner of mineral rights for the area submitted a plan to mine coal. The Forest Service determined that such mining could be destructive to the area, and attempted to acquire the mineral rights. However, the owner and the Forest Service could not agree on a price for the rights, and the Forest Service believes that it must allow mining. Based on this and other such experiences, GAO and the Forest Service believe that such problems could increase because the Forest Service cannot legally prevent mineral development and Congress is unlikely to appropriate funds to acquire mineral rights for more wilderness areas. GAO also found that, in 1979, the Forest Service submitted recommendations to Congress regarding expansion of the wilderness system. However, the Forest Service did not consider the problems associated with private mineral rights for proposed wilderness areas. The Forest Service is currently reevaluating its wilderness recommendations.

TITLE: Status of the Statistical Community After Sustaining Budget Reductions
RPTNO: IMTEC-84-17 DOCUMENT DATE: 07/18/84
ORGANIZATION CONCERNED:
Department of Commerce
Department of Health and Human Services
Department of the Treasury
Department of Agriculture
Department of Labor
Department of Commerce: Bureau of the Census
Bureau of Labor Statistics
Department of Commerce: Bureau of Economic Analysis
Department of Agriculture: Statistical Reporting Service
Department of Justice
Department of Education: National Center for Education Statistics
Internal Revenue Service
PRIMARY BUDGET FUNCTION:
806.0/General Government: Other General Government
LAW AUTHORITY:
Labor Management Relations Act, 1947
P.L. 94-521
13 U.S.C. 141(d)
BACKGROUND:

GAO reviewed changes made by prominent Federal statistical agencies to accommodate budget reductions initiated in the early 1980's to determine: (1) program and activity changes from 1980 through the budget authorization for fiscal year (FY) 1984; (2) the rationale for the changes; and (3) the effect of the changes on statistical programs and activities.

FINDINGS:

Although program reductions made by the statistical agencies mainly affected FY 1982, the statistical system generally has survived, and funding has been restored for several important data programs and for delayed improvements of other programs. GAO found that the Census Bureau was not permitted to proceed with the legally mandated mid-decade census, and it deleted portions of an agriculture census and temporarily suspended work on two other activities. The Bureau of Labor Statistics eliminated several data series and reduced the sample size of a population survey. The Department of Agriculture's Statistical Reporting Service reduced the geographic coverage of some reports, eliminated others, and reduced the frequency of certain data. The National Center for Health Statistics also revised the frequency of several of its data series. The National Center for Education Statistics reduced its technical assistance to States and its research programs. The Internal Revenue Service reduced the sample sizes of several data series, but retained the sample sizes at a level needed for tax administration. GAO found that, in accommodating budget cuts, the statistical agencies protected their core programs, preserved national level data, and attempted to minimize the difficulties for data users. Some users overcame the changes by financing data series proposed for deletion or reduction, and some private sector users paid for data they formerly received at no cost.

TITLE: The Federal Crop Insurance Corporation's Efforts To Provide Monthly Reports to the Senate Committee on Appropriations
RPTNO: RCED-84-169 DOCUMENT DATE: 07/13/84
ORGANIZATION CONCERNED:
Department of Agriculture: Federal Crop Insurance Corp.
PRIMARY BUDGET FUNCTION:
351.0/Agriculture: Farm Income Stabilization
LAW AUTHORITY:
Crop Insurance Act
7 U.S.C. 1501 et seq.
S. Rept. 97-566
S. Rept. 98-160
BACKGROUND:

In response to a congressional request, GAO reviewed the methodology which the Federal Crop Insurance Corporation (FCIC) used in developing data for required monthly congressional reports on producer participation in the

Federal Crop Insurance Program, the rate at which policies are cancelled, and any marketing or significant administrative changes that affect the program's cost. In addition, GAO reviewed the monthly reports to determine their accuracy.

FINDINGS:

GAO found that FCIC has often changed its methodology for preparing the monthly reports and the type of data reported. Furthermore, it has: (1) not reported accurately its actual business but has instead reported a combination of actual and estimated business; (2) either not reported information for its reinsured companies' business or presented information not comparable to the information presented for its master marketer business; (3) based its anticipated program participation on estimates or on funds appropriated by Congress; and (4) not reported marketing and administrative changes that affect program costs. As a result, the reports have been incomplete, have lacked continuity, and have generally overstated program participation. Information is available to FCIC that would provide Congress with an adequate basis for month-to-month comparisons of FCIC business. However, further clarification by Congress is needed on such issues as reporting estimated versus actual figures, pertinent marketing, and significant administrative changes that affect program costs.

TITLE: Congress Needs Better Information on Forest Service's Below-Cost Timber Sales

RPTNO: RCED-84-96 DOCUMENT DATE: 06/28/84

ORGANIZATION CONCERNED:

Department of Agriculture
Forest Service

PRIMARY BUDGET FUNCTION:

302.0/Natural Resources and Environment: Conservation and Land Management

LAW AUTHORITY:

Forest Management Act of 1976
16 U.S.C. 472a
S. 3091 (94th Cong.)
16 U.S.C. 471

BACKGROUND:

GAO analyzed 3,244 advertised timber sales made in four western Forest Service regions in fiscal years 1981 and 1982 to determine: (1) whether individual sales were being made below cost and, if so the general magnitude of this practice in terms of the number, amount of loss, and geographic location; (2) the justification for it; and (3) whether better data could be given to Congress.

FINDINGS:

GAO found that, overall, Forest Service revenues exceeded its costs by $712 million. However, although the timber was sold at or above appraised value, some of the sales did not generate enough revenues to cover the costs of making the sales. Below-cost sales had shortfalls of $64 million in 1981 and $92 million in 1982. Such sales occurred more frequently in Forest Service regions that had mostly low productivity timberlands, low sales values for predominant tree species, and relatively low volumes of timber sold. Generally, these sales were in areas that had steep terrain, which increased harvesting costs and involved engineering and construction costs. GAO found that, because the Forest Service does not identify and accumulate its costs for individual timber sales, it is hampered from taking timely actions to reduce costs or improve sale economics. GAO found that 47 to 89 percent of total sale costs were incurred after sale award. Limited cost data on individual sales hampered the Forest Service's response to its annual reporting requirement. The Forest Service makes below-cost sales to encourage the use of damaged timber, improve the growth of individual stands, or satisfy the needs of local communities dependent on national forest timber sales. Although the primary reason for selling timber below cost is to remove relatively low valued timber stands and replace them with higher valued timber stands, GAO found that this rationale was not validated by the net present value of the next stand of timber.

TITLE: Agriculture's First-Year Implementation of the Federal Managers' Financial Integrity Act
RPTNO: RCED-84-138 DOCUMENT DATE: 06/21/84
ORGANIZATION CONCERNED:
Department of Agriculture
PRIMARY BUDGET FUNCTION:
350.0/Agriculture
LAW AUTHORITY:
Federal Managers' Financial Integrity Act of 1982

BACKGROUND:
GAO reviewed the Department of Agriculture's (USDA) implementation of the Federal Managers' Financial Integrity Act.

FINDINGS:
GAO found that USDA has made progress toward improving its internal controls. Many USDA agencies have completed vulnerability assessments and have taken steps to improve internal controls by correcting weaknesses and conducting internal control reviews. GAO found some weaknesses in the USDA internal control program; agency reports do not always follow Federal guidelines and are not reviewed for compliance with such guidelines. In addition, USDA does not adequately address internal controls for automatic data processing. GAO also found that USDA does not perform in-depth accounting system compliance evaluations or determine whether accounting systems were operating in accordance with Federal standards.

TITLE: [The President's Ninth Special Message for FY 1984]
RPTNO: OGC-84-13 DOCUMENT DATE: 06/11/84
ORGANIZATION CONCERNED:
Agency for International Development
Forest Service
PRIMARY BUDGET FUNCTION:
990.2/Impoundment Control Act of 1974
LAW AUTHORITY:
Congressional Budget and Impoundment Control Act of 1974

BACKGROUND:
GAO reviewed the President's ninth special message to Congress for fiscal year 1984.

FINDINGS:
The special message proposed one new deferral of $101,999,550 and a revision to a previously reported deferral totaling $778,000. GAO identified no additional information that would be useful to Congress and believes that the proposed deferrals are in accordance with existing statutes.

TITLE: [Peruvian Rice Purchases Guaranteed by the Commodity Credit Corporation]
RPTNO: NSIAD-84-116 DOCUMENT DATE: 06/07/84
ORGANIZATION CONCERNED:
Department of Agriculture: Commodity Credit Corp.
Republic of Peru
PRIMARY BUDGET FUNCTION:
352.1/Agriculture: Import-Export Issues
LAW AUTHORITY:
Commodity Credit Corporation Charter Act
15 U.S.C. 714c(f)
7 C.F.R. 1493
P.L. 83-480

BACKGROUND:
Pursuant to a congressional request, GAO investigated rice purchases made by Peru in September 1983 under a U.S. Government guaranteed export credit, focusing on: (1) whether Peru passed up lower responsive bids during the procurement of the rice; and (2) what is required of recipient countries and the Department of Agriculture under Export Credit Guarantee Program legislation and implementing regulations.

FINDINGS:
GAO found that Peruvian officials: (1) had passed over two lots of lower priced rice from one offerer to purchase an equivalent amount of rice from other exporters at a premium of over $300,000; and (2) decided to split the

purchase among several suppliers either because of the low offerer's deficient service on a prior purchase or to achieve supply security. Agriculture's Export Credit Guarantee Program is not administered under any specific underlying legislation, and regulations for the program impose no restrictions on the purchasing terms and conditions that a buying country can employ nor do they provide for Agriculture to have access to the importers' records. Agriculture officials stated that the importers, often private or quasi-private entities, should be able to choose which commodities to purchase since they must repay amounts borrowed to commercial banks within 3 years and, since the program is considered a commercial sales program, regulations do not require competitive bidding or the acceptance of lowest priced offers. GAO stated that implementing regulations similar to those governing the Public Law 480 concessional sales program would not necessarily eliminate the type of situation that occurred in Peru, and importing countries might be reluctant to subject themselves to tighter controls which could affect U.S. export levels.

TITLE: Importance and Impact of Federal Alcohol Fuel Tax Incentives
RPTNO: RCED-84-1 DOCUMENT DATE: 06/06/84
ORGANIZATION CONCERNED:
Department of Energy
Department of the Treasury
Department of Agriculture
PRIMARY BUDGET FUNCTION:
271.0/Energy: Energy Supply
LAW AUTHORITY:
Clean Air Act
Energy Tax Act of 1978
P.L. 95-618
Crude Oil Windfall Profit Tax Act of 1980
P.L. 96-223
Highway Revenue Act of 1982
P.L. 97-424
Omnibus Reconciliation Act of 1980
P.L. 96-499
40 C.F.R. 80.20
General Agreement on Trade and Tariffs, October 30, 1947, Multilateral , 61 Stat. 5(6), T.I.A.S. 1700
BACKGROUND:

GAO discussed issues related to the Federal alcohol fuel tax incentives. Specifically, GAO addressed the importance of Federal tax incentives to the ethanol industry and the impact of the production of ethanol on agriculture, the Federal budget, international trade, national energy security, and other energy industries.

FINDINGS:

GAO found that Federal tax incentives have been vital to the establishment and development of the domestic fuel ethanol industry and, without a subsidy, ethanol could not compete with current gasoline prices and would not be used as a fuel. GAO determined that the ethanol industry has had only a modest impact on the domestic economy, international trade balance, and national energy security. Stockpiling ethanol fuel could reduce U.S. vulnerability to an oil supply disruption. However, GAO questioned the cost effectiveness of stockpiling ethanol fuel. In addition, GAO found that the total value of tax subsidies received by conventional oil and gas industries has historically been much greater than that received by the fuel ethanol industry and other alternative energy sources. Since the conventional fuel industries benefit from these tax subsidies, GAO believes that to withdraw support for the fuel ethanol industry would be inconsistent. GAO determined that continuing the tax incentives until their scheduled expiration date in 1992 would be appropriate because the private sector has invested considerably in fuel ethanol plants with the expectation that the market for the fuel would continue until 1992. GAO concluded that increasing the tax incentives could not be justified because combined Federal and State incentives are adequate to make ethanol competitive and suggested that the incentives be reviewed periodically.

TITLE: The Management System for Identifying and Correcting Problems in the Food Stamp Program Can Work Better
RPTNO: RCED-84-94 DOCUMENT DATE: 05/30/84
ORGANIZATION CONCERNED:
Department of Agriculture
Department of Agriculture: Food and Nutrition Service
PRIMARY BUDGET FUNCTION:
604.0/Income Security: Housing Assistance and Other Income Supplements
LAW AUTHORITY:
Food Stamp Act of 1964
Food Stamp Act of 1977
7 U.S.C. 2011
Omnibus Budget Reconciliation Act of 1981
Omnibus Budget Reconciliation Act of 1982
P.L. 97-253
BACKGROUND:

GAO reviewed the corrective action process used by the Food and Nutrition Service to encourage states to solve Food Stamp Program problems.

FINDINGS:

GAO found that the Service has taken some actions to help states develop and implement corrective action plans. However, the Service regions had approved some state plans which did not cover all major problems or which proposed corrective actions which were inadequate for solving the problems that were identified. In addition, the Service and the states did not always analyze and summarize all available data to ensure that all identified problems were being addressed in the plans. Of five states reviewed, only one had developed corrective actions for solving most major problems. GAO found that even when corrective action plans included major problems, the planned solutions were not always adequate. Furthermore, because states and Service regional offices failed to analyze and summarize the results of local program evaluations, they were unaware of some problems which needed to be addressed. In addition, the Service did not ensure that states' plans were carried out in a timely manner or that the states monitored the effectiveness of planned actions. Three of the five states reviewed had inadequate procedures for monitoring corrective actions or improperly used such procedures. GAO also found that regional offices lacked clear-cut criteria for determining when to warn states that federal funds might be withheld due to errors. Finally, GAO found that Service requirements for state management evaluations of local program operations were burdensome and did not cover all recent program changes.

TITLE: Federal Government's Progress in Implementing a National Archeological and Historic Preservation Program
RPTNO: RCED-84-114 DOCUMENT DATE: 05/30/84
ORGANIZATION CONCERNED:
Department of the Interior
Department of Agriculture
Department of Housing and Urban Development
Advisory Council on Historic Preservation
Office of Management and Budget
PRIMARY BUDGET FUNCTION:
303.0/Natural Resources and Environment: Recreational Resources
DESCRIPTIVE NOTE:
Refer to CED-81-61, April 22, 1982, Accession Number.
LAW AUTHORITY:
Historic Preservation Act
P.L. 89-665
National Historic Preservation Act Amendments of 1980
P.L. 96-515
Archeological and Historic Preservation Act of 1974
Antiquities Act
P.L. 59-209
Archeological Resources Protection Act of 1979
P.L. 96-95
Historic Sites Act
P.L. 74-292

Environmental Policy Act of 1969 (National)
P.L. 91-190
Executive Order 11593
P.L. 86-523

BACKGROUND:

In response to a congressional request, GAO provided followup information concerning: (1) Federal agencies' actions to protect and preserve archeological and historic sites on Federal lands in compliance with the National Historic Preservation Act Amendments of 1980; (2) Federal agencies' actions to implement prior GAO recommendations in this area; and (3) the status of the Department of the Interior's approval of State historic preservation plans.

FINDINGS:

GAO previously reported that Federal agencies' archeological and historic preservation efforts were characterized by disorder and controversy. To remedy the situation, GAO made 16 recommendations to Interior and other Federal agencies covering the areas of archeological resource identification, the States' role in determining archeological site significance, and the extent of data recovery of historic and archeological materials. GAO found that, as of February 1984, Interior, the Advisory Council on Historic Preservation, and other Federal agencies had responded to 9 recommendations and that Interior and the Advisory Council had taken action to comply with 35 of the 54 requirements of the 1980 amendments. Because many actions have only recently been implemented and supporting documentation is in draft form, GAO has not evaluated the effectiveness of the actions. GAO noted that actions on some recommendations and requirements have been suspended because of disputes between the Office of Management and Budget and other Federal agencies and the Advisory Council on the legality of Council regulations. Specifically, implementation of section 106 of the amended National Historical Preservation Act is controversial. In addition, GAO found that Interior is requiring all States to implement comprehensive historic preservation planning to receive preservation grants. As of February 1984, 24 States, the District of Columbia, and Puerto Rico were in the process of implementing Interior's model planning approach.

TITLE: [ASCS Needs Better Information To Adequately Assess Proposed County and State Office Automation]
RPTNO: IMTEC-84-11 DOCUMENT DATE: 05/25/84

ORGANIZATION CONCERNED:
Agricultural Stabilization and Conservation Service
Department of Agriculture

PRIMARY BUDGET FUNCTION:
990.1/Automatic Data Processing

BACKGROUND:

GAO examined the Agricultural Stabilization and Conservation Service's (ASCS) cost-benefit analysis to determine whether ASCS adequately justified the automation of its state and county offices.

FINDINGS:

Before automating the state and county offices that administer ASCS commodity and land use programs, ASCS tested the idea in seven county offices. The ASCS cost-benefit analysis shows greater estimated benefits than costs. GAO determined that the ASCS analysis may be overly optimistic. GAO found that the estimates are uncertain because ASCS relied on judgment rather than historical data to project many costs and benefits, and available evidence does not support some of the projections. Most of the estimated benefits are based on projections of saved staff time and improved accuracy. Further, the accuracy improvement is not substantiated by evidence, and other benefits are overstated. Estimated costs for equipment and maintenance appear to have been understated. Finally, ASCS plans to use untested technology for the implementation phase, which increases the risk of unforeseen expenses.

TITLE: An Assessment of SES Performance Appraisal Systems
RPTNO: GGD-84-16 DOCUMENT DATE: 05/16/84
ORGANIZATION CONCERNED:
Office of Personnel Management
Department of the Navy
Department of the Air Force
National Labor Relations Board
Securities and Exchange Commission
Department of Commerce
Department of Agriculture
Department of the Interior
National Aeronautics and Space Administration
Department of Housing and Urban Development
PRIMARY BUDGET FUNCTION:
805.0/General Government: Central Personnel Management
LAW AUTHORITY:
Civil Service Reform Act of 1978
P.L. 95-454
Performance Rating Act of 1950
F.P.M. ch. 430
BACKGROUND:

GAO reviewed Senior Executive Service (SES) performance appraisal systems at various federal agencies to determine the extent to which such systems are meeting the requirements of the Civil Service Reform Act. GAO sent questionnaires to SES personnel and reviewed individual SES performance plans and appraisals.

FINDINGS:

GAO found that most agencies have implemented SES performance appraisal systems that meet the requirements of the act, but some systems need refinements to more fully meet the objectives of the act. GAO believes that this is not unusual because agencies had less than 1 year after the enactment of the act to implement appraisal systems. GAO found that: (1) less than 30 percent of the performance plans reviewed contained qualitative performance standards and less than 60 percent contained quantitative standards; (2) performance requirements were not always established before the beginning of each rating period; and (3) many performance plans had not been updated in response to changes in job responsibilities. In addition, GAO found that: (1) 71 percent of the executives sampled believed that their performance plans met the act's objectives; (2) at least 57 percent of those surveyed believed that their agency's SES performance appraisal system had no effect on performance and was not worth its cost; and (3) none of the agencies surveyed had established a system to evaluate its SES performance appraisal system.

TITLE: Foreign Service Act of 1980: Implementation Status, Progress, and Problems
RPTNO: NSIAD-84-65 DOCUMENT DATE: 05/01/84
ORGANIZATION CONCERNED:
Department of State
Agency for International Development
United States Information Agency
Department of Commerce
Department of Agriculture
Peace Corps
United States Arms Control and Disarmament Agency
PRIMARY BUDGET FUNCTION:
153.0/International Affairs: Conduct of Foreign Affairs
LAW AUTHORITY:
Civil Rights Act of 1964
Civil Service Reform Act of 1978
P.L. 95-454
Foreign Assistance Act of 1961
Equal Pay Act of 1963
Foreign Service Act of 1946
Foreign Service Act of 1980
P.L. 96-465
Executive Order 12362
Executive Order 12363

BACKGROUND:

In response to a congressional request, GAO performed a review to: (1) determine the status of the implementation and the extent of compliance by the foreign affairs agencies with the new provisions of the Foreign Service Act of 1980; (2) identify implementation problems caused or not addressed by the act; and (3) highlight specific issue areas on which Congress may want to focus in its oversight of the the act's implementation and its evaluation of the program's effectiveness.

FINDINGS:

GAO found that much has been accomplished by the foreign affairs agencies in implementing the act's new provisions in the areas of Senior Foreign Service, labor-management relations and Foreign Service grievances, personnel management, pay, worldwide assignment availability, family-oriented provisions, revised and new allowances for Foreign Service members, new congressional reporting requirements, promotion and retention, and professional development. However, the agencies have experienced some implementation problems in the areas of appointments, personnel conversions, compensation, personnel management, labor-management relations, benefits and allowances, and promotion and retention. As the Senate Foreign Relations Committee performs its oversight to ensure that the act is being implemented, specific areas deserve Committee attention, including: (1) continuing Senior Foreign Service membership in bargaining units of Foreign Service unions; (2) progress achieved under joint labor-management negotiations and the development of uniform regulations; (3) efforts to promote greater compatibility among the foreign affairs agencies in their personnel systems and operations; (4) disputes over the administration of performance pay awards to Senior Foreign Service members; (5) possible implications to the Foreign Service personnel system and assignment process of a pending court case dealing with the Equal Pay Act; and (6) use of the limited career extension mechanism and reporting of stretch assignment usage.

TITLE: Federal and State Liability for Inaccurate Payments of Food Stamp, AFDC, and SSI Program Benefits
RPTNO: RCED-84-155 DOCUMENT DATE: 04/25/84
ORGANIZATION CONCERNED:
Department of Agriculture: Food and Nutrition Service
Social Security Administration
PRIMARY BUDGET FUNCTION:
604.0/Income Security: Housing Assistance and Other Income Supplements
LAW AUTHORITY:
Food Stamp Act Amendments of 1982

BACKGROUND:

Pursuant to a congressional request, GAO analyzed the error-rate sanction system for the Food Stamp program and compared it to systems used for the Supplemental Security Income (SSI) and Aid to Families with Dependent Children (AFDC) programs. Sanction systems are used to hold states, or the federal government, responsible for excessive errors in determining applicants' eligibility and benefit levels.

FINDINGS:

GAO found that sanction systems for the three programs establish error-rate thresholds for erroneous payments and impose financial sanctions for errors that exceed the thresholds. The three systems differ regarding: (1) who is liable and for what; (2) applicable error-rate thresholds; (3) calculation of sanctions; and (4) waiver procedures to reduce sanction liabilities. For the Food Stamp and AFDC programs, states are liable for excessive errors involving federal funds. Under the SSI program, which is administered by the Social Security Administration (SSA), the federal government is responsible for overpayments of state funds by states for which SSA administers State supplements concurrently with Federal benefits. The Food Stamp program uses an error-rate threshold of 9 percent for fiscal year (FY) 1983, 7 percent for FY 1984, and 5 percent for FY 1985. The AFDC program uses a threshold of 4 percent for FY 1983 and 3 percent for FY 1984 and thereafter. The SSI program has used a threshold of 4 percent since 1980. For the SSI and AFDC programs, calculation of sanctions involves multiplying the amount of program benefits by the extent the actual error rate exceeds the threshold. For the Food Stamp program, sanctions are based on the amount of a state's federally reimbursed administrative costs. Waivers of sanctions are possible under the Food Stamp and AFDC programs but not under the SSI program. GAO found that SSA and the Department of Agriculture, which administers the Food Stamp program, have made extensive use of this authority to eliminate state liability.

TITLE: Opportunities for Greater Cost Effectiveness in Public Law 480, Title I Food Purchases
RPTNO: NSIAD-84-69 DOCUMENT DATE: 04/19/84
ORGANIZATION CONCERNED:
Department of Agriculture
Department of Agriculture: Foreign Agricultural Service
Agricultural Stabilization and Conservation Service
PRIMARY BUDGET FUNCTION:
352.1/Agriculture: Import-Export Issues
LAW AUTHORITY:
Agricultural Trade Development and Assistance Act of 1954
P.L. 83-480
7 U.S.C. 1691 et seq.
7 C.F.R. 17.6(b)(2)
BACKGROUND:
GAO discussed opportunities to improve the effectiveness of subsidized food purchases by recipient, developing countries under the Public Law 480, Title I program.
FINDINGS:
Under the program, the Department of Agriculture's Foreign Agricultural Service in fiscal year (FY) 1982 financed about $722 million worth of purchases of agricultural commodities by developing countries. GAO examined 54 of the 86 purchases made in FY 1982 and found that opportunities exist to better control or reduce program costs. In 26 percent of the cases GAO reviewed, buyer purchasing practices were not conducive to achieving the full benefits of open competitive tendering or obtaining the lowest prices. Delays in signing Title I agreements and overlapping of purchases with the Title II program caused prices to rise. GAO found that the Foreign Agricultural Service is financing price premiums for individualized and nonstandard specifications when lower cost alternatives are available. GAO noted that the legal requirement that the United States receive a fair share of the increase in recipients' commercial imports over time is not monitored or emphasized. Finally, GAO concluded that: (1) the credibility of the price evaluation system is questionable; (2) the Foreign Agricultural Service price reviewers routinely approved sales prices that exceeded the market price as determined by the Stabilization and Conservation Service; and (3) the Stabilization and Conservation Service needs to survey a broader cross-section of the industry to better establish market prices for certain commodities.

TITLE: Regulation of the Poultry Industry Under the Packers and Stockyards Act
RPTNO: RCED-84-110 DOCUMENT DATE: 04/13/84
ORGANIZATION CONCERNED:
Department of Agriculture: Packers and Stockyards Administration
PRIMARY BUDGET FUNCTION:
352.0/Agriculture: Agricultural Research and Services
LAW AUTHORITY:
Packers and Stockyards Act, 1921
7 U.S.C. 181 et seq.
Poultry Products Inspection Act
21 U.S.C. 451 et seq.
Meat Inspection Act
21 U.S.C. 601 et seq.
BACKGROUND:
GAO studied the poultry industry and the regulation of the industry by the Department of Agriculture (USDA), focusing on: (1) industry structure; (2) differences between regulation of the poultry and the livestock industries; and (3) issues and concerns affecting regulation of the poultry industry.

FINDINGS:

GAO found that the poultry industry has changed from one of small independent producers into a highly integrated industry in which producers grow poultry under contracts with processors. Poultry consumers have benefited from this integration because of increased production, decreased real prices, and consistent quality. The poultry industry is regulated by USDA, Packers and Stockyards Administration. The Administration regulates the industry by ensuring that contracts between producers and processors are complied with. Regulation of the poultry industry differs from regulation of the livestock industry in that USDA has no authority to issue cease and desist orders in poultry cases. USDA must report violations in poultry cases to the Department of Justice for possible prosecution. Problems facing the poultry industry include: (1) poultry growers not being paid by processors that declare bankruptcy; and (2) the recent outbreak of avian flu, which caused over 10 million birds to be destroyed as of February, 1984. GAO found varying opinions among poultry producers and processors as to whether these problems mandate legislative changes in USDA regulatory authority over the poultry industry.

TITLE: Foreign Currency Purchases Can Be Reduced Through Greater Use of Currency Use Payments Under Public Law 480 Commodity Sales Agreements

RPTNO: NSIAD-84-76 DOCUMENT DATE: 04/10/84

ORGANIZATION CONCERNED:

Department of the Treasury
Department of State
Department of Agriculture
Agency for International Development
Department of Agriculture: Commodity Credit Corp.

PRIMARY BUDGET FUNCTION:

151.0/International Affairs: Foreign Economic and Financial Assistance

LAW AUTHORITY:

P.L. 83-480

BACKGROUND:

GAO examined the U.S. collections of local currencies payable under provisions in certain commodity sales agreements to see whether they are being collected in a timely manner.

FINDINGS:

GAO found that amounts owed remained uncollected while needed local currencies were purchased with dollars from commercial sources. Purchases of local currencies could have been reduced by $29 million between October 1981 and September 1983 by collecting the amounts payable. Since the dollar equivalent of collections is credited to the Commodity Credit Corporation, the Corporation may have to reduce its program level or obtain necessary funds from other sources, if receipts are less than projected. If amounts uncollected as of September 1983 are collected, they may reduce further dollar purchases; if they remain uncollected, their equivalent amounts are payable in dollars when the credit installments become due. GAO found that no system has been established to ensure timely currency-use payments collections. The collections are the responsibility of individual State Department missions. However, the missions do not directly benefit from the collection efforts. Agreements for fiscal year 1982 with seven countries where local currencies were purchased contained no currency-use payment provisions because of political reasons or oversight. In addition, greater use of these provisions may be constrained by the conflicting interests of the agencies involved.

TITLE: [Status of Budget Authority Proposed for Rescission in President's Sixth Special Message for FY 1984]

RPTNO: OGC-84-10 DOCUMENT DATE: 04/06/84

ORGANIZATION CONCERNED:

Department of Housing and Urban Development
National Park Service
Delaware River Basin Commission
Susquehanna River Basin Commission
Panama Canal Commission
Corporation for Public Broadcasting
Department of Agriculture: Rural Electrification Administration

PRIMARY BUDGET FUNCTION:
990.2/Impoundment Control Act of 1974
LAW AUTHORITY:
Congressional Budget and Impoundment Control Act of 1974
BACKGROUND:
The President's sixth special message for fiscal year 1984 proposed nine rescissions of budget authority.
FINDINGS:
GAO confirmed that on March 28, 1984, the budget authority covered by eight of the rescission proposals was apportioned by the Office of Management and Budget. The funds covered by the remaining rescission proposal were an advance appropriation not available until fiscal year 1986. Therefore, no withholding of funds was involved.

TITLE: An Evaluation of the 1981 AFDC Changes: Initial Analyses
RPTNO: PEMD-84-6 DOCUMENT DATE: 04/02/84
ORGANIZATION CONCERNED:
Department of Health and Human Services
Department of Agriculture
PRIMARY BUDGET FUNCTION:
604.0/Income Security: Housing Assistance and Other Income Supplements
DESCRIPTIVE NOTE:
Refer to Testimony, May 5, 1984, Accession Number 124040.
LAW AUTHORITY:
Omnibus Budget Reconciliation Act of 1981
BACKGROUND:
In response to a congressional request, GAO evaluated the effect of changes in the Omnibus Budget Reconciliation Act of 1981 on the Aid to Families with Dependent Children (AFDC) program.
FINDINGS:
Several months after the act's changes, national AFDC caseloads and outlays had decreased. GAO estimated that 493,000 fewer cases were open during an average month, and outlays were $93 million less during an average month than before the enactment. Overall, the act affected working AFDC recipients disproportionately. Large percentages of AFDC earner cases were either closed or had their AFDC grants reduced. Many earners who lost AFDC reported that they simultaneously lost food stamp benefits. GAO found that most earners who lost AFDC benefits did not quit their jobs and return to AFDC. For nonearners, the pattern of AFDC use was generally the same before and after the enactment. All of the families interviewed were categorically eligible for Medicaid while they were receiving AFDC, but few were receiving Medicaid or any other form of Government subsidized health care after they lost their AFDC benefits. Approximately half of the families which lost AFDC benefits had no health insurance coverage. The respondents in four sites reported the occurrence of various hardships, such as the need to borrow money and the lack of food, significantly more often after enactment.

TITLE: Food Bibliography
RPTNO: RCED-84-130 DOCUMENT DATE: 04/84
ORGANIZATION CONCERNED:
Department of Agriculture
PRIMARY BUDGET FUNCTION:
352.0/Agriculture: Agricultural Research and Services
BACKGROUND:
This bibliography includes information on documents directly or indirectly related to food, agriculture, and nutrition that have been released by GAO between January 1981 and December 1983. The documents included are representative of the broad interrelationship which exists between the food area and other issue areas of concern to GAO such as health, transportation, energy, defense, and international affairs.

TITLE: Participation in the National School Lunch Program
RPTNO: RCED-84-132 DOCUMENT DATE: 03/30/84
ORGANIZATION CONCERNED:
Department of Agriculture
PRIMARY BUDGET FUNCTION:
604.0/Income Security: Housing Assistance and Other Income Supplements
DESCRIPTIVE NOTE:
Refer to Testimony, April 25, 1984, Accession Number 123992.
LAW AUTHORITY:
Omnibus Reconciliation Act of 1980
P.L. 96-499
Omnibus Budget Reconciliation Act of 1981
P.L. 97-35

BACKGROUND:

In response to a congressional request, GAO analyzed participation in the National School Lunch Program during the years immediately preceding and following changes in the Federal reimbursement rates to schools and income eligibility criteria for free and reduced-price meals made by the Omnibus Reconciliation Act of 1980 and the Omnibus Budget Reconciliation Act of 1981. GAO: (1) determined the number of students receiving free, reduced-price, and full-price school lunches; (2) determined the extent to which schools and students have dropped out of the program in recent years; (3) compared data on the number of families with eligible children and incomes meeting program eligibility criteria with program expenditure data; and (4) discussed data on School Lunch Program participation reported by the President's Task Force on Food Assistance.

FINDINGS:

GAO found that, over the past 5 years, the number of students participating in the School Lunch Program has declined from 27 million to 23.1 million. This decline is primarily attributable to reductions in the number of students eating full-price lunches. There has been a 2.9-percent decline in the number of schools in the nation over the past 5 years and a 6.5-percent decline in student enrollment. Although the 1980 and 1981 acts tightened eligibility criteria, total Federal expenditures for the School Lunch Program were greater in 1983 than at any time in the 5-year period except the peak year of 1981. During the same period, a greater share of Federal School Lunch Program expenditures was used to provide students with free lunches. Between 1979 and 1982, the number of families with school-age children and incomes at or below the nonfarm income poverty level increased, the number of families with children eligible for reduced-price lunches also increased, but the number of higher income families decreased. In addition, Federal expenditures for reduced-price and full-price lunches decreased. The President's Task Force on Food Assistance concluded that the percentage of families at or below the poverty threshold with school-age children and receiving free or reduced-price lunches remained stable between 1979 and 1982 and participation in the program declined for families with higher incomes. GAO found that these findings were consistent with the trends it reported.

TITLE: The Bureau of Land Management Should Follow Fair Market Value Requirements in Selling Land in Las Vegas, NV
RPTNO: RCED-84-127 DOCUMENT DATE: 03/27/84
ORGANIZATION CONCERNED:
Bureau of Land Management
Forest Service
Department of Agriculture
Department of the Interior
PRIMARY BUDGET FUNCTION:
302.0/Natural Resources and Environment: Conservation and Land Management
DESCRIPTIVE NOTE:
Refer to Testimony, March 27, 1984, Accession Number 123750.
LAW AUTHORITY:
Santini-Burton Act of 1980
P.L. 96-586
94 Stat. 3381

Land Policy and Management Act
P.L. 94-579
43 C.F.R. 2710
43 C.F.R. 2711.3
43 C.F.R. 2712
BLM Order 701

BACKGROUND:

Pursuant to a congressional request, GAO evaluated procedures used by the Bureau of Land Management (BLM) to sell land in Las Vegas, Nevada, to determine whether BLM complied with federal requirements that land be sold for no less than its fair market value. Fair market value is defined as the price for which a property would be sold by an informed owner willing, but not obligated, to sell to an informed buyer willing, but not obligated, to buy.

FINDINGS:

GAO found that the BLM preferred sale procedure is an auction, followed by over-the-counter sales of land parcels not sold at auction. BLM sets the minimum bid for each parcel before the auction. The minimum acceptable bid is usually the fair market value. Because of concern over lagging sales at auctions, BLM reduced by 15 percent the appraised fair market value for 46 parcels of land. BLM believed that the lower prices complied with federal requirements because the reduced prices represented the fair market value for a 1-day sale. BLM believed that it needed to sell the land quickly to provide revenue for Forest Service land acquisitions. However, funds for the Forest Service acquisitions were appropriated from the Land and Water Conservation Fund and, while BLM is required to reimburse these appropriations, it does not have to do so until 1995. Consequently, GAO believes that BLM did not need to discount land to sell it quickly and that, by discounting land in the Nevada sales, BLM did not comply with fair market value requirements.

TITLE: [Income Analysis of Farmers Home Administration Subsidized Rural Homebuyers in 1983]
RPTNO: RCED-84-145 DOCUMENT DATE: 03/26/84

ORGANIZATION CONCERNED:
Farmers Home Administration

PRIMARY BUDGET FUNCTION:
451.0/Community and Regional Development: Community Development

LAW AUTHORITY:
Housing Act
Housing Act of 1949
Rural Housing Amendments of 1983

BACKGROUND:

In response to a congressional request, GAO analyzed the incomes of the rural households who purchased homes under the Farmers Home Administration (FmHA) home-ownership program in fiscal year 1983 to determine the effect that new targeting provisions and income limits enacted by Congress in 1983 would have had on the eligibility of those assisted in 1983.

FINDINGS:

The FmHA program provides low interest rate subsidized loans to eligible households who earn less than 80 percent of area median income with certain adjustments for family size. The Rural Housing Amendments of 1983 stated that, nationwide, not less than 40 percent of the loans could be made to households whose incomes did not exceed 50 percent of the area median income with adjustments for family size. Not less than 30 percent of the loans in each State are to be provided to very low-income households. Of 53,466 household files which GAO analyzed, 84 percent of the households would have qualified for assistance had the new eligibility criteria been in effect in 1983. GAO also found that about 24 percent of all borrowers would have been classified as very low income in 1983 under the new rules. If the households who would not have qualified under the new rules were excluded from the calculations, then 28 percent of qualified borrowers would have had very low incomes in 1983. Only two States would have exceeded the 40-percent requirement for very low-income households, while six States would have exceeded the 30 percent minimum for individual States. There has been substantial variation from region to region in the degree of income targeting under the new eligibility limits, and the greatest degree of targeting has occurred in the south. Under the new law, income limits for small households were generally reduced while those for larger households were increased, and qualifying incomes will rise considerably in some locations.

TITLE: A 2-Year Appraisal of Merit Pay in Three Agencies
RPTNO: GGD-84-1 DOCUMENT DATE: 03/26/84
ORGANIZATION CONCERNED:
Department of Housing and Urban Development
Department of Agriculture
Department of the Navy
Office of Personnel Management
PRIMARY BUDGET FUNCTION:
805.0/General Government: Central Personnel Management
DESCRIPTIVE NOTE:
Refer to Testimony, April 26, 1984, Accession Number 123991.
LAW AUTHORITY:
Civil Service Reform Act of 1978
F.P.M. ch. 430
Civil Service Retirement Special Equity Act of 1984
P.L. 98-615
F.P.M. Bulletins 540-25, 540-26, and 540-27
BACKGROUND:

In response to a congressional request, GAO assessed the merit pay systems at the Departments of Agriculture, Housing and Urban Development, and the Navy during 1981 and 1982.

FINDINGS:

In fiscal year 1982, about 108,000 federal employees were covered by the merit pay system, which was established by the Civil Service Reform Act of 1978. About half of the merit pay employees that GAO surveyed were dissatisfied with the system because they were not guaranteed the full annual adjustment and within-grade increases granted to other federal employees. GAO found that non-performance-related factors adversely affected merit pay practices and employees' perceptions of the system. Although the act requires that the Office of Personnel Management (OPM) analyze the system's cost and effectiveness and annually publish the results, OPM evaluations have not met the act's requirements. GAO noted that the objectivity of the performance standards and their appropriateness to the job being evaluated improved slightly over the 2-year period. OPM regulations which sought to correct flaws in the merit pay system were declared null and void by a U.S. district court and OPM was enjoined from implementing them. However, GAO stated that the court decision does not preclude OPM from sponsoring legislation or drafting new regulations to address merit pay system problems.

TITLE: [Federal Crop Insurance Program in North Carolina and Iowa]
RPTNO: RCED-84-120 DOCUMENT DATE: 03/16/84
ORGANIZATION CONCERNED:
Department of Agriculture: Federal Crop Insurance Corp.
PRIMARY BUDGET FUNCTION:
351.0/Agriculture: Farm Income Stabilization
DESCRIPTIVE NOTE:
Refer to RCED-84-65, March 14, 1984, Accession Number 123688.
BACKGROUND:

Pursuant to a congressional request, GAO reviewed the Department of Agriculture's Federal Crop Insurance Program, which is administered by the Federal Crop Insurance Corporation (FCIC). Specifically, GAO was asked to obtain information about how the program was working in North Carolina and Iowa.

FINDINGS:

GAO found that, in North Carolina, the number of acres insured under the program dropped from 17 percent of the total planted acres in 1982 to 12 percent in 1983; in Iowa, the acres insured dropped from 16 percent in 1982 to 11 percent in 1983. Producers cited various reasons for not buying Federal crop insurance, including the high cost of premiums, covering their own losses, and low yield coverage. Although FCIC spent almost $12 million to advertise the crop insurance program, a study showed that producer awareness of the program was about the same before and after the advertising campaign. FCIC must maintain a loss ratio of 1.0 or lower for indemnities paid to premiums received to remain actuarially sound. In North Carolina and Iowa the loss ratios were below that figure for 1982. However, loss ratios varied substantially within crops.

TITLE: More Attention Needed in Key Areas of the Expanded Crop Insurance Program
RPTNO: RCED-84-65 DOCUMENT DATE: 03/14/84
ORGANIZATION CONCERNED:
Department of Agriculture: Federal Crop Insurance Corp.
Department of Agriculture
PRIMARY BUDGET FUNCTION:
351.0/Agriculture: Farm Income Stabilization
LAW AUTHORITY:
Federal Crop Insurance Act of 1980
P.L. 96-365
BACKGROUND:
GAO reviewed actuarial practices of the Federal Crop Insurance Corporation (FCIC), the rates at which private sector companies are compensated for selling and servicing crop insurance, and the distribution of gains and losses on crop insurance sold by private companies and reinsured by FCIC.
FINDINGS:
Congress has expressed concern regarding FCIC progress in implementing the Federal Crop Insurance Act of 1980, the effectiveness of program changes when insurance losses in 1981 and 1982 are considered, and the annual increases in FCIC appropriation requests. GAO found that, following enactment of the legislation, FCIC made substantial progress in expanding the program and involving the private sector in selling and servicing crop insurance. However, FCIC did not give appropriate attention to ensure that its insurance was actuarially sound, did not carefully evaluate its actions involving the private sector, nor make a detailed cost study when it established the compensation rates for the private sector companies' sales and service activities. Under the expanded reinsurance program, private insurance companies obtain reinsurance coverage from FCIC as protection against part of the risk of insuring crops. Allowed annual revisions to the standard reinsurance agreement have resulted in increased costs and risks to FCIC. GAO noted that FCIC has initiated numerous actions that should improve the insurance paperwork submitted by independent insurance agents and taken steps to develop a comprehensive quality control program and a plan for an independent audit of the reinsured companies.

TITLE: Improved Administration of Special Surplus Dairy Product Distribution Program Needed
RPTNO: RCED-84-58 DOCUMENT DATE: 03/14/84
ORGANIZATION CONCERNED:
Department of Agriculture: Food and Nutrition Service
Department of Agriculture
PRIMARY BUDGET FUNCTION:
351.0/Agriculture: Farm Income Stabilization
DESCRIPTIVE NOTE:
Refer to Testimony, April 25, 1984, Accession Number 123992.
LAW AUTHORITY:
Agricultural Act of 1949
Dairy Production Stabilization Act of 1983
P.L. 98-180
Agriculture and Food Act of 1981
P.L. 97-98
Commodity Credit Corporation Charter Act
Agricultural Trade Development and Assistance Act of 1954
Temporary Emergency Food Assistance Act of 1983
P.L. 98-8
P.L. 97-6
P.L. 97-253
P.L. 98-92

BACKGROUND:

In response to a congressional request, GAO reviewed the Department of Agriculture's (USDA) program for distributing surplus dairy products to the needy. Specifically, GAO was asked to determine whether program administration adequately ensured that products were provided only to the needy and to develop estimates on the extent to which donated products displaced commercial sales.

FINDINGS:

GAO believes that the absence of national program guidelines on key issues, such as the target population to be served and controls to ensure that participants are eligible, contributed to widely varying programs among the states and, in some cases, among localities. GAO found that: (1) three of the eight states studied had not established any needs tests for program participants; (2) distribution frequencies and quantities of products made available to participants varied; (3) controls over the distribution of products were generally inadequate; and (4) until April 1983, when the quantities of products made available were cut back, the states were able to order virtually unlimited amounts of dairy products. As a result, abuses occurred and displacement of commercial sales was greater than necessary. Legislation enacted in September 1983 required the establishment of program criteria and required USDA to: (1) provide commodities in quantities which can be used without waste; (2) ensure that the commodities provided do not displace commercial sales; and (3) minimize the paperwork requirements imposed on distribution agencies. To the extent that products given away displace commercial sales, they increase market surpluses which USDA is obligated to purchase under the Dairy Price-Support Program and increase USDA inventories of dairy products. GAO estimated that about 31 percent of the cheese distributed from December 1981 to April 1983 in the eight states would have displaced commercial sales of cheese.

TITLE: Electronic Marketing of Agricultural Commodities: An Evolutionary Trend

RPTNO: RCED-84-97 DOCUMENT DATE: 03/08/84

ORGANIZATION CONCERNED:

Department of Agriculture

PRIMARY BUDGET FUNCTION:

352.0/Agriculture: Agricultural Research and Services

LAW AUTHORITY:

Packers and Stockyards Act, 1921

7 U.S.C. 181 et seq.

BACKGROUND:

In response to a congressional request, GAO reported on the efforts of the Department of Agriculture (USDA) to develop electronic marketing for agricultural commodities, the benefits and problems of electronic marketing, and the status of electronic marketing in agriculture.

FINDINGS:

USDA is monitoring the use of electronic systems in marketing livestock, providing educational activities to persons interested in learning about electronic marketing systems, and funding pilot projects to demonstrate the feasibility of computerized electronic marketing. Overall, the projects demonstrated that agricultural commodities can be traded electronically and that electronic marketing is a feasible alternative to current marketing systems. However, the studies showed that, to be successful and economically viable, trading volume must be sufficient to cover the fixed and operating costs of an electronic market as well as to attract and keep traders in the system. The projects showed that electronic marketing improved market information, increased marketing efficiency, increased competition, and increased access to the market for both buyers and sellers. In addition, transportation costs are lower because an electronic market eliminates the need for central assembly of products prior to sale. Some of the problems associated with electronic marketing include concerns that: products cannot be adequately described, personal interchange will be lost, buyers and sellers will not perform according to the terms stipulated in the trade, and that electronic marketing is not cost-effective. In addition, some potential users are unwilling to participate or see no advantage in participating.

TITLE: [President's Sixth Special Message for FY 1984]
RPTNO: OGC-84-6 DOCUMENT DATE: 02/27/84
ORGANIZATION CONCERNED:
Department of Housing and Urban Development
Department of the Interior
Delaware River Basin Commission
Susquehanna River Basin Commission
Panama Canal Commission
Department of Agriculture
Corporation for Public Broadcasting
Department of Education
Department of Energy
Department of State
Department of Transportation
Tennessee Valley Authority
PRIMARY BUDGET FUNCTION:
990.2/Impoundment Control Act of 1974
LAW AUTHORITY:
Congressional Budget and Impoundment Control Act of 1974
BACKGROUND:

GAO reviewed the President's sixth special message for fiscal year 1984.

FINDINGS:

The special message proposed nine rescissions totaling $634,711,454, thirteen new deferrals totaling $143,595,000, and revisions to five previously reported deferrals totaling $68,152,365. The period during which funds may be withheld pending congressional consideration will end on March 28, 1984. GAO believed that the proposed deferrals were in accordance with existing authority.

TITLE: Government Could Save Millions by Revising Its Purchase Specification for Ground Beef
RPTNO: RCED-84-29 DOCUMENT DATE: 02/21/84
ORGANIZATION CONCERNED:
Department of Agriculture
Department of Defense
Veterans Administration
Department of Agriculture: Food Safety and Inspection Service
PRIMARY BUDGET FUNCTION:
351.0/Agriculture: Farm Income Stabilization
LAW AUTHORITY:
School Lunch Act
42 U.S.C. 1755
7 U.S.C. 612c
Interim Federal Specification PP-B-2120
BACKGROUND:

The major federal agencies that buy ground beef require that the product meet certain formulation and certification specifications, some of these specifications increase the material costs and restrict the flexibility of suppliers without increasing the quality, flavor, or nutritional value of the meat. GAO reviewed this matter to determine whether the federal government could buy ground beef at a lower cost.

FINDINGS:

Ground beef suppliers and meat experts told GAO that, despite the Government's formulation and certification requirements for its meat purchasing, the commercial product, which accounts for more than 95 percent of U.S. ground beef production, is adequate for the government's use. Commercial customers rely on the Department of Agriculture's Food Safety and Inspection Service (FSIS) to ensure the quality of their meat products. The government could have saved about $20 million of the $181 million it spent for ground beef in fiscal year 1982 if it had purchased commercial ground beef. Further, if the responsibility for product quality assurance were transferred to FSIS, at least 2 cents per pound could be saved by eliminating some duplication in the certification process.

TITLE: [Information on the Forest Service Road Construction Program]
RPTNO: RCED-84-99 DOCUMENT DATE: 02/14/84
ORGANIZATION CONCERNED:
Forest Service
Department of Agriculture
PRIMARY BUDGET FUNCTION:
302.0/Natural Resources and Environment: Conservation and Land Management
LAW AUTHORITY:
Forest Management Act
BACKGROUND:

In response to a congressional request, GAO provided information regarding: (1) suggestions for improving the Forest Service's presentation and justification of its road construction budget; and (2) data on the Forest Service's recently revised guidelines and road construction standards.

FINDINGS:

The Forest Service has traditionally presented its road construction appropriation budget request as one line item, lump sum dollar request. In response to congressional concern over the lack of information provided, its fiscal year 1984 budget displayed the functional categories into which the appropriated funds would be allocated. GAO suggested a further revision of the budget presentation that would require the agency to divide the budget request between certain functional categories and assign an appropriate dollar amount to each category. The dollar amount for each category would then be subdivided between the principal uses of the requested appropriations. Using this format, the agency would be in a position to supplement this information with data that would compare the intended use with the actual use of the funds which would assist agency officials in providing a more meaningful explanation of the use of program funds. In September 1982, the Forest Service issued revised policy and guidelines for the design of forest development roads and its technical handbook dealing with forest road design. It also began testing a value analysis technique to identify cost-effective alternatives in its road construction program; however, it is too early to evaluate the economic merits of the actions.

TITLE: [President's Fifth Special Message for FY 1984]
RPTNO: OGC-84-5 DOCUMENT DATE: 02/06/84
ORGANIZATION CONCERNED:
Executive Office of the President
Department of Agriculture
Department of Commerce
Department of Defense
Department of Health and Human Services
Department of Justice
Department of State
United States Information Agency
PRIMARY BUDGET FUNCTION:
990.2/Impoundment Control Act of 1974
LAW AUTHORITY:
Congressional Budget and Impoundment Control Act of 1974
BACKGROUND:

GAO reviewed the President's fifth special message to Congress for fiscal year 1984 which proposed seven new deferrals of budget authority totaling $1,832,465,000 and revisions to seven previously reported deferrals totaling $2,734,156,870.

FINDINGS:

GAO believes that the proposed deferrals are in accordance with existing statutes.

TITLE: Federal and State Initiatives Needed To Improve Productivity and Reduce Administrative Costs of the Aid to Families With Dependent Children and Food Stamp Programs
RPTNO: AFMD-84-18 DOCUMENT DATE: 02/02/84
ORGANIZATION CONCERNED:
Department of Agriculture
Department of Health and Human Services

PRIMARY BUDGET FUNCTION:
806.0/General Government: Other General Government
LAW AUTHORITY:
H. Rept. 96-285

BACKGROUND:
Administrative costs in the Aid to Families With Dependent Children (AFDC) and Food Stamp programs have increased at a more rapid pace than benefit payments to recipients. GAO reviewed the processing of AFDC and Food Stamp applications at 15 welfare offices in 8 states. This review was based on a comparison of the productivity of these offices. GAO also examined the impact that inconsistent federal criteria for determining an applicant's income and assets and different federal time periods for processing AFDC and Food Stamp cases have on productivity.

FINDINGS:
From its review, GAO found that productivity rates of workers directly involved in processing AFDC and Food Stamp applications varied widely among the 15 welfare offices. This variance resulted primarily from processing practices, which included case-processing methods, use of computers, management expectation of employee performance, and efforts to verify applicants' data. Although the Department of Health and Human Services considered demographic factors to be a key cause of productivity variances in the AFDC program, GAO determined that they did not have a significant impact on the 15 offices. In addition, GAO found that: (1) federal requirements for determining an applicant's income and assets hinder state and local case-processing productivity; and (2) federal agencies need to emphasize productivity in much the same way as they have emphasized reducing payment errors.

TITLE: Economic Effects of Cargo Preference Laws
RPTNO: OCE-84-3 DOCUMENT DATE: 01/31/84
ORGANIZATION CONCERNED:
Department of Agriculture
Department of Transportation
Department of State
Department of Defense
PRIMARY BUDGET FUNCTION:
403.0/Transportation: Water Transportation
LAW AUTHORITY:
Cargo Preference Act (Merchant Marine)
Merchant Marine Act, 1920
Merchant Marine Act, 1936
Military Transportation Act of 1904
P.L. 80-480

BACKGROUND:
Using 1980 shipping data, GAO analyzed the dependency of the U.S.-flag fleet on cargo preference laws, the economic effects of cargo preference, and the effect of eliminating the cargo preference requirement for the Food-for-Peace program.

FINDINGS:
Cargo preference laws mandate that at least 50 percent of all U.S. Government-owned or -financed cargo shipped between American and foreign ports be carried on U.S.-flag ships. GAO believes that the following general conclusions regarding the effects of cargo preference laws are valid provided the assumptions used in analyzing 1980 data remain applicable: (1) the maritime industry depends on cargo preference laws for some of its cargo, but not all Government cargo carried on U.S.-flag ships is transported because of cargo preference laws; (2) additional U.S.-flag ships and American crews are employed in transporting Government cargo; (3) the Government pays more to ship its cargo than it would if it were allowed to use less expensive foreign-flag ships; and (4) the Food-for-Peace program is a major source of cargo carried on U.S.-flag ships because of cargo preference laws.

TITLE: WIC Evaluations Provide Some Favorable but No Conclusive Evidence on the Effects Expected for the Special Supplemental Program for Women, Infants, and Children
RPTNO: PEMD-84-4 DOCUMENT DATE: 01/30/84

ORGANIZATION CONCERNED:
Department of Agriculture
PRIMARY BUDGET FUNCTION:
352.0/Agriculture: Agricultural Research and Services
DESCRIPTIVE NOTE:
Refer to Testimony, March 15, 1984, Accession Number 123639.
LAW AUTHORITY:
Omnibus Budget Reconciliation Act of 1981
Child Nutrition Act
P.L. 92-433

BACKGROUND:

In response to a congressional request, GAO reviewed evaluations of the effectiveness of the Supplemental Program for Women, Infants, and Children (WIC). The review focused on the effects of the program on miscarriages, still-births, neonatal deaths, maternal nutrition, and high-risk mothers, as well as claims that the WIC program is directly related to positive outcomes in these areas. GAO also reviewed the effect of the WIC program on birthweights and claims that the program reduces the chances for anemia and mental retardation in infants and children.

FINDINGS:

GAO found that there is insufficient information to make any general or conclusive judgments as to whether the WIC program is effective or not. However, there are indications that the program has had positive effects in some areas. Six evaluations gave some support for claims that the program increases infant birthweights. However, GAO did not find conclusive evidence that the WIC program: (1) lessened the number of fetal and neonatal deaths; (2) was associated with better maternal nutrition; (3) prevented anemia in infants and children; (4) had an effect on mental retardation; or (5) had a positive effect on the birthweights of the infants of mothers who were teenagers or blacks or had several health- and nutrition-related risks. GAO found almost no information about the separate effects of WIC services for food supplements, nutrition counseling, and adjunct health care. Many of the documents which GAO reviewed did not adequately describe the design, execution, or analyses that were used in the evaluation effort; therefore, it was difficult to determine the technical adequacy of the findings. However, progress has been seen in the improvement of designs and methodologies of recent evaluations.

TITLE: [Feasibility of Providing the Armed Services With Additional Surplus Dairy Commodities Owned by USDA]
RPTNO: RCED-84-88 DOCUMENT DATE: 01/17/84
ORGANIZATION CONCERNED:
Department of Agriculture
Department of Agriculture: Commodity Credit Corp.
Department of Defense
PRIMARY BUDGET FUNCTION:
351.0/Agriculture: Farm Income Stabilization
LAW AUTHORITY:
Agricultural Act of 1949
7 U.S.C. 1446a(b)
Navy Ration Act
47 Stat. 1423
Dairy Production Stabilization Act of 1983
P.L. 98-180

BACKGROUND:

In response to a congressional request, GAO gathered information on the feasibility of providing Department of Agriculture (USDA) surplus dairy commodities to the armed services and obtained information on the prices which the Commodity Credit Corporation (CCC) and the armed services pay for dairy products.

FINDINGS:

GAO found that, under the Agricultural Act of 1949, the armed services can order dairy products from CCC only in quantities which exceed their normal needs. The armed services must meet their normal needs by purchasing such products on the open market. If the law were revised to eliminate this restriction, providing the armed services' normal needs with CCC-owned dairy products would displace their commercial purchases. This would result in increasing the market surplus which CCC would have to purchase under its dairy price-support program and add to CCC dairy surplus inventories. CCC now pays less for butter and cheese than the armed services pay; however, it purchases products in bulk form, whereas the armed services purchase products in ready-to-use form. When CCC provides free cheese and butter to the armed services, it incurs additional costs to have these products processed into ready-to-use units for military use and the armed services reimburse CCC for the processing costs.

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DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE

COMMODITY CREDIT CORPORATION

FOREIGN AGRICULTURAL SERVICE

OFFICE OF INTERNATIONAL COOPERATION AND DEVELOPMENT

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